

The Technology Review

Published at Cambridge 39, Boston, Mass.

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VOL. XXIII

NOVEMBER, 1921

No. 4

PRESIDENT NICHOLS RESIGNS

DR. ERNEST FOX NICHOLS, inaugurated president of the Institute only last June, has resigned his office because of ill health, and his resignation has been accepted by the Executive Committee of the Corporation. The resignation was announced November 20, 1921. He has been granted leave of absence until January 4, 1922, when the Corporation will meet and ratify the action of the Executive Committee.

Although Dr. Nichols was inaugurated president of the Institute June 8, he never assumed office, for soon after the ceremonies he was stricken with an illness which made it impossible for him to take up his duties. He has been spending the time since the inauguration in Woodstock, Vermont, where his physicians ordered him to recuperate. Because of this illness and its consequences his physicians insisted that he relinquish his post and after much discussion the Tech Executive Committee regretfully accepted the resignation on the ground that there seemed to be no alternative.

The post which is left vacant will be filled by Dr. Elihu Thomson of Swampscott, chief engineer of the General Electric Company who has been again appointed acting president, a post which he filled after the death of Richard C. Maclaurin in January, 1920, till Dr. Nichols was named last spring. The office carries no responsibility of actual management for it is under this condition that Dr. Thomson agreed to accept. The educational affairs of the Institute will continue to be directed by the Administrative Committee, consisting of Prof. Henry P. Talbot, who is also head of the chemistry department and acting dean; Prof. Edward F. Miller, head of the department of mechanical engineering and chairman of the Faculty, and Prof. Edwin B. Wilson, head of the department of physics.

Dr. Nichols' chief concern now will be to regain his physical strength after which he will probably resume his research work at Nela Park. The Corporation has already begun to search for a successor to him.

technology review

Published by MIT

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DEAN HENRY PAUL TALBOT

BY DR. JAMES F. NORRIS

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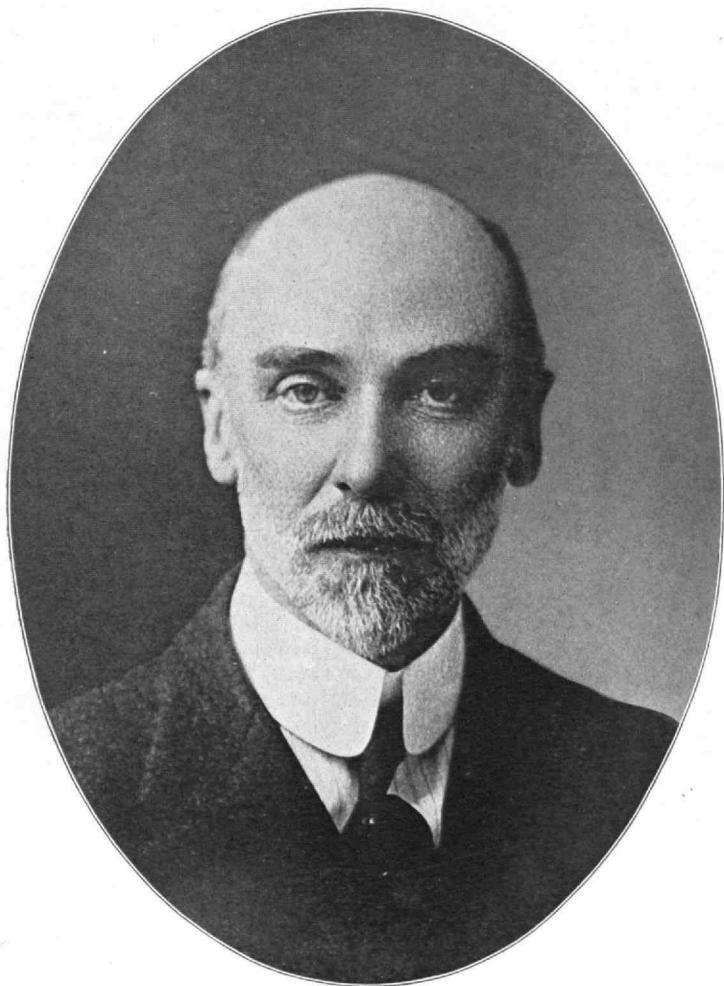
Reprinted from The Tech Engineering News

FROM the point of view of those connected with Technology, the retirement of Dean Burton and the appointment of Professor Talbot as acting Dean were, no doubt, two of the most important events of the last school year at the Institute. The students, especially, are anxious to learn the record and personality of the man who is to be their representative in the Faculty — the man to voice sympathetically their point of view as a body and to look after their individual interests. They want to know something definite of the one to whom they are to turn for counsel in their handling of the difficult problems that arise in connection with student government and other activities of the student body. I have been asked to sum up the more important events in the academic and scientific life of Professor Talbot and to sketch his personality. I have been associated with him for a number of years as a colleague in the Department of Chemistry and have had the opportunity to see how he handles men and things. After ten years of absence from the Institute my return made it possible to observe with the point of view of an outsider — with the perspective that is often lost by continuous association.

The student reserves his respect for the man who has accomplished things in the world and his confidences for the one who will meet him half-way with sympathetic interest. A review of the record of Professor Talbot as a chemist and administrator and a brief account of how successfully he has maintained an intimate and cordial relationship with the students of his department will assure the student-body at the outset that they have in their new Dean a man whom they can respect for his attainments, in whom they can confide, and one whose advice and judgment will be valuable.

Professor Talbot graduated at the Institute in 1885 and received the degree of Doctor of Philosophy from the University of Leipzig in 1890. He returned to the Institute as an instructor and was rapidly promoted through the several grades and was finally appointed Professor of Analytical Chemistry in 1898. He showed marked administrative ability and from 1895 was nominally in charge of the Department of Chemistry, although his official appointment to this post was not made until 1901.

Professor Talbot's training in chemistry was broad; his work as a student equipped him with the point of view of the analytical chemist; his research for the doctorate was in organic chemistry; and he devoted



HENRY PAUL TALBOT, '85
Acting Dean of the Institute

much attention to the study in Germany of the new physical chemistry which was being rapidly developed at that time. He was impressed with the importance of the advance of the science in this direction, and on his return from Germany he introduced at the Institute a course in physical chemistry, which he taught successfully. This course was one of the first in this subject given in American universities.

When Professor Talbot took over the instruction of the first-year students, he felt the advisability of bringing before them the more fundamental concepts of the newer chemistry. He accordingly prepared with the assistance of Professor Blanchard a text for this purpose entitled "The Electrolytic Dissociation Theory." Professor Talbot's progressive action in these two cases is typical of his attitude in educational affairs. He has been the leader in the development of his department to its present efficient condition and has served as chairman of committees on chemical education in the American Chemical Society and the Society for the Promotion of Engineering Education. Professor Talbot has shown unusual interest in the teaching of high school science and has been helpful in organizations devoted to the improvement of teaching in this field. He served as President of the New England Chemistry Teachers' Association and was for several years chief examiner in chemistry of the College Entrance Examination Board.

Professor Talbot's record as a member of the American Chemical Society brought to him last year the honor of election as one of the five directors who determine the more important policies of the Society and have full charge of its finances. He has been a member of the Council since 1898; he has served as associate editor of the *Journal of the Society* and as chairman of the Division of Inorganic and Physical Chemistry. He has also been a member of many important committees.

During the Great War, Professor Talbot was appointed a member of a small committee to act in an advisory capacity to the Bureau of Mines in the work it had undertaken in correlating the chemical activities of the country to meet the problems arising from gas warfare. He was particularly helpful in presenting to the Secretary of War directly the needs of this organization, which carried on for over a year, outside of the War Department, all the work on war gases.

Professor Talbot has always been interested in research. In the years following his return from Germany he published the results of several investigations in the field of inorganic and analytical chemistry. For a number of years he was chairman of the committee of the American Academy of Arts and Sciences that has charge of the C. M. Warren Fund, the income of which is devoted to aiding chemical research. In recent years, the small amount of time available after he had completed his work as a teacher and administrator has been devoted to editorial work and the writing of papers on educational, scientific and industrial subjects. He is the author of a widely read textbook on Quantitative Analysis. Professor Talbot is the consulting editor of the *International Chemical Series*, which comprises books on a wide range of subjects in the field of chemistry. During the war the *Atlantic Monthly* published

a series of papers by him on gas warfare. These were written in the interesting and lucid style which is characteristic of all of Professor Talbot's writings. As Chairman of the Faculty, and of the Administrative Committee since the death of President MacLaurin, Professor Talbot has had much to do with shaping the recent policies of the Institute.

Professor Talbot's work has always been appreciated by chemists, and it was with pleasure that they heard last June that Dartmouth College had bestowed upon him the honorary degree of Doctor of Science. In bestowing the distinction his record was summed up as follows: "Henry Paul Talbot—Administrator and Scholar, faithful and versatile contributor to the welfare of a distinguished sister institution of high learning; scientist whose interest in the discovery of new truths is matched by instinct for the application of those truths, of whose knowledge you have possessed yourself; by virtue of the authority vested in me, I welcome you to the fellowship of Dartmouth men and I confer upon you the honorary degree of Doctor of Science."

In the midst of all his scientific, educational, and administrative activities Professor Talbot consented to serve as acting Dean for the present year. A factor involved in his decision was, no doubt, the conscientious attitude which has been a marked element in his character. If he saw a duty he undertook it and put his best efforts into it. A colleague, who was a former student of Professor Talbot, considers his conscientious makeup to be his outstanding trait; he always had his lectures in such form that it was possible to take logical and well balanced notes; and he always saw that every student got a "fair deal."

When Professor Talbot came to the Institute there were no student activities; no "Tech," no "Show," and fraternity life had not been developed. Although he did not have the advantages that come from these important factors in making men of boys and in developing character and poise, he has always valued them. A former student said that a number of his fellows were led to join fraternities through the high opinion of them expressed by Professor Talbot. His sympathetic attitude was recognized by his election several years ago to active membership in the Phi Gamma Delta and Alpha Chi Sigma fraternities. In 1914 the Technique was dedicated to Professor Talbot, an honor the meaning of which the students know best.

Professor Talbot's belief in student activities has shown itself in the interest he has taken in the Students' Chemical Society, which has grown to be an important aid in developing its members. This attitude towards the various organizations controlled by the students has its foundation in the keen personal interest Professor Talbot has always shown in the students as individuals. One of my colleagues, in pointing out the cordial relationship that exists between Professor Talbot and the students who get to know him, noted the fact, evident to us all, that Professor Talbot has retained the spirit of youth. It could not be otherwise with the pleasure he derives from association with youth. For years his home has been open informally to his students and many

of the graduates of the Institute recall the hearty greeting they always received and the "Southern hospitality" of Mrs. Talbot. It will be of interest to the new students to know that Mrs. Talbot has the qualifications and sympathies that will make her an efficient helper to the Dean. There are occasions in the life of a young man just from home when the advice of a woman is valuable.

Professor Talbot knows the student well. For a number of years he took an active part in the instruction of the freshmen and met the seniors in chemistry in small classes in which all formality was dispensed with. In the course called "Thesis Reports" he took the opportunity of training men in the art of talking on their feet; and he corrected in a friendly spirit many faults in personality which stood in the way of success in the intercourse with men.

Those of us who know him best feel confident that the students will find in their new Dean a man after their own hearts.

PROFESSOR CROSS DIES SUDDENLY

PROFESSOR-EMERITUS CHARLES R. CROSS, '70, died very suddenly of heart trouble on Wednesday morning, November 16, at his home in Brookline. He was seventy-three years old.

This news comes as THE REVIEW goes to press. Professor Cross's life was peculiarly a part of the first half century of the Institute's life and with him one more of the small living band of pioneers is gone. A full memorial will be published in the January issue of THE REVIEW.

Will the Alumni of the Institute send in any incidents they may remember as notable or unusually interesting about Professor Cross, in either his public or his personal life, particularly if they are concerned with the early years of the Institute.

THE OCTOBER MEETING OF THE ALUMNI COUNCIL

Interesting reports from corporation members

THE eighty-sixth meeting of the Council, the first of this year, was held in the Walker Memorial on Monday evening, October 31. There was a goodly gathering at dinner, with Prof. E. F. Miller, the new chairman of the Faculty, as the special guest of the evening. The well-known Mr. Aiken "of Kansas" was salad orator, mixing truth and fiction indistinguishably, and the entire evening was a succession of funny stories, including the one that has been told at every Council meeting for the past six months. President Arthur D. Little, '85, presided.

The principal speech of the evening was the resumé and forecast by Professor Miller of the year past and the year to come. He first dealt with the registration, the largest to date, with a freshman class of 700 and a senior class of 1000, plus 350 men holding degrees or unclassified. We have, he said, the largest percentage of foreign students of any college in the country, seven per cent. From other colleges come 38 per cent, of whom 15 per cent hold degrees. The number of entering freshmen and the number of students from Massachusetts have not kept pace with this increase from other colleges and other countries. The Faculty is now 150, an increase of 25 over last year, largely because of the addition of 15 Faculty instructors, for example Mr. Lambirth of Course II, whose long and faithful service deserve the recognition.

Of great importance to the Institute, said Professor Miller, is the fact that last year the United States Government took the Ordnance School of the Army from the Aberdeen Proving Ground and asked Technology to undertake the work. The Government is sending us 25 men a year, has loaned us all necessary equipment, consisting of seven carloads of motors, worth about \$250,000. The men will remain for a full calendar year, taking the most advanced work the Institute offers, intensive work in calculus, applied mechanics, etc. Six of the best survivors of this course will be kept here for another year to take their A.M. Besides this, the Government is considering another Ordnance School for Technology, the school in gas engines, tanks and tractors. As soon as the new building, already started behind the old barracks, is ready to receive them, gas engines worth \$30,000 will be sent here. The naval constructors are here this year as usual, besides some men who are doing special research work in torpedoes, which will probably be continued.

Professor Miller also described briefly the very gratifying results of one year's work of the new Medical Department. Its growth has been very great; it has treated in one year 7643 patients, of whom 54 were surgical cases. In all serious cases parents are kept informed by tele-

graph, and the sick boys are visited constantly by Mrs. Archer T. Robinson, who is giving all her time to the work, and to whom Professor Miller paid a warm tribute. There were 236 cases treated from among the Faculty. For needy students who might not be able to afford medical attendance the Corporation appropriated \$5,000, of which \$350 was spent. During the year there were three deaths. Physical examinations were made to the number of 1017, including all freshmen and new students, all men engaging in athletics and any others who ask for an examination. Finally, added Professor Miller, the records of the Medical Department show that the student vitality is lowest in April, when over 1200 cases were treated.

In closing, Professor Miller said that so far as he knew, never had the Institute begun its school year so smoothly, with so little difficulty or friction as it had this year.

The other chief business on the program was to consist of statements by retiring and incoming term members of the Corporation. Harry J. Carlson, '92, on being asked to give an account of his stewardship, gave a detailed and encouraging account of the work in the past few years to build up the Architectural Department, in which he had been especially interested. He told how, with Dr. Maclaurin's encouragement, an attempt had been made to find the very best possible man to fill the vacancy as head of the department, and how out of a list of two hundred men the present head, Professor Emerson, was finally invited and at length accepted. Mr. Carlson then went on to sketch the new morale in the architectural work, resulting from the personality of the new chief, his interest in the work, and his generosity — the man known to his students as William the Affable, his instruments the oil can and the hammer. He spoke also of the joint Faculty of the Technology and the Harvard Architectural Schools and the conjunctive problems, a co-operation which has benefited both schools and the general architectural profession. In closing, Mr. Carlson said that he hoped the Architectural School would soon move across the river and again become one in spirit with the rest of the school, provided it was not put down in a back lot on the railroad track but given a position compatible with its artistic pretensions.

Dr. Mixer and Mr. Horne, also members, were not present to speak, but Colonel Locke and Mr. Metcalf spoke as "baby members" of the Corporation and pledged themselves to faithful service. Mr. Locke spoke of his interest in human engineering and the student activities and bespoke the interest of the Council in that line of endeavor; and Mr. Metcalf spoke of the problems resulting from the unparalleled growth of the school in late years, particularly those having to do with the great numbers of students and the increasing lack of personal contact by the instructors, many of whom were young and green at the work.

There was, following these speeches, brief discussion as to the place of meeting for other Council meetings in the year and for the annual dinner, the question being raised whether it would not be easier for the members to have the meetings in Boston instead of at the

Institute. The general sentiment seemed to be in favor of the Institute as a meeting place, Mr. Metcalf being especially strong in that point of view; it was finally left to the Executive Committee for decision.

Mr. A. J. Browning, '22, of *The Tech*, who has been working for most of the summer trying to build up the membership in the Alumni Association, made a brief but encouraging report, which will be found *in extenso* in another part of this issue.

Prof. Archer T. Robinson of the English Department, who travelled a good deal during the summer in the Middle West, partly on his own business and partly as a visitor from the Alumni Association to the local clubs, spoke of his experience in Washington, Chicago, Cleveland, ten cities in all, where he talked to Tech men and gave them the message of the central body of alumni. He declared himself 100 per cent sold to the Middle West, but insisted that the Tech men out there feel like orphans, cut off from all contact and sore on "the Boston crowd" as they call it, and thinking of Tech in terms of twenty-five years ago instead of as it is today. He especially urged the Council to re-establish connections, to get back in touch with their alumni, to get into touch with industry and with other engineering schools, and insisted that many members of the Faculty ought to be sent out frequently, not at the expense of the local associations but of the Institute.

This provoked an interesting and lively discussion, in which many took part, notably Mr. Holcomb of the Washington Club and Mr. James P. Munroe, who described the Princeton plan of alumni organization with a live wire general manager constantly on the move, who organizes backward fields, keeps them stirred up, has a lecture bureau at his disposal to send out, stumping the country when necessary; an expensive proposition but one which has brought millions to Princeton. President Little voiced, apparently, the sentiment of the gathering when in summing up he urged the Council to "hold the thought."

Other business of the meeting included a statement from Dr. Rowe in behalf of the new choral society which is to meet on Friday evenings at the Institute to sing good music, to which neighboring alumni are cordially invited. Mr. Everett Morss, in referring to Mr. Carlson's speech paid a tribute to him as having been the man to suggest Technology's proposed part in the threatened railroad strike, and also to settle the vexing problem of the Walker Memorial Dining Room and put it on its feet again.

It was voted that the annual dinner of the Association be held in the Walker Memorial on Saturday evening, January 7, 1922.

The Council then adjourned at the usual hour until November 28.

THE DRIVE FOR ALUMNI MEMBERSHIP

A summer's work in increasing interest in the association

BY ALBERT J. BROWNING '22

Editor's Note: As a result of last spring's discussion concerning the present condition of *THE REVIEW* and its future status, it was seen clearly that any change of policy in the magazine must largely result from increase in subscriptions, which meant automatically, an increase in membership in the Alumni Association. Incidentally, one method of effecting both seemed to lie in raising the level of the class notes and increasing their scope. For these two purposes a special agent was appointed, Mr. A. J. Browning, '22, general manager of *The Tech*, who during part of the summer worked to such good purpose that his report, a part of which is herewith published, as of general alumni interest, shows a gain of nearly \$2,000 in dues. As this is only the beginning of the work, the problem and its successful solution is placed before the brethren for their advice and suggestions.

In order to secure more members of the Alumni Association, it was announced at the meeting of the Alumni Council on May 23, 1921 that a special agent had been appointed and that a drive would be conducted for a period of seven weeks. The work of this special agent was to be three-fold; first, to obtain members for the Alumni Association; second, to assist the Class secretaries in getting more live Class notes for *THE REVIEW*; and third, to assist the editor in any way possible.

With fourteen thousand alumni and former students of Technology and only about four thousand of these as active paying members of the Alumni Association, there was a large field for such a drive. However, it was decided to work only with those men who had been out of the Institute less than twenty years.

The purposes of this report are: first, to present to the Alumni Association a summary of the work done by the special agent and, second, to serve as a reference for future drives.

Work was started on June 13, 1921, at which time the Class of 1921 was approached for membership dues. In the few minutes that the Class was assembled prior to receiving their degrees two hundred and forty-nine dollars was collected and two hundred and sixty-four seniors signed cards requesting that *THE REVIEW* be sent them and promising to pay dues.

Being a reserve officer, I was ordered to camp at Fort Monroe for a five-week period after the close of school and was unable to do any more work until July 25. At that time work was begun in earnest.

Feeling that an appeal as personal and as interesting as possible should be sent out, President Nichols' inauguration address was chosen as being something which every alumnus would be interested in reading. Mr. Arthur D. Little wrote a most interesting and timely appeal which was printed with the President's speech. Six thousand of these were ordered, but it was found necessary to have six hundred more printed in order to cover the desired Classes.

Each Class secretary was then asked to write a letter to accompany the other letter and speech. Reprints were also made of the Class notes of those Classes which had particularly good notes in the July REVIEW. With these four avenues of attack, it was hoped that at least one would prove effective.

The members of the several Classes were then divided into three groups; those who were paid members of the Association and, therefore, not to be reckoned with in the drive; those graduates, and therefore members of the Association, who had not paid their dues; those members of the Class who did not graduate and who have never taken an active interest in the Association.

In the letter to those who had not paid their dues a bill was sent stating that this was a third notice and to be members in good standing it would be necessary for them to pay the \$3.00 dues.

For those who did not graduate, an application for membership was enclosed.

Wherever possible a follow-up letter was sent out by the Class secretary appealing to the men to become active members of the Association.

Realizing that a more personal method would be needed to call attention to the importance of keeping in touch with alumni affairs, lists were sent to most of the Class secretaries who delegated other members of the Class to call on or write those who were delinquent urging them to become members. This proved to be one of the most effective methods of getting members.

The Class secretaries almost without exception, gave their heartiest co-operation and are doing their best to get every possible member.

At first the results were very disappointing, but a continuous stream of dues and applications have been coming in. With such a large percentage of the members of the Classes not graduates, it is surprising that we have as large a number in the Association.

Up to the present time, approximately seven thousand letters have been sent out. The total cost of the drive to date is \$751.19 and the amount of money brought in as a result of the drive totals \$1,898, making a total profit to date of \$1,147. This means that six hundred members have paid dues. Fifty-two applications for membership have been received.

With a continuous stream of membership cards still coming in, this amount bids fair to be swelled a great deal. *The fact that in the three months of June, July and August, exclusive of the Class of 1921,*

only \$89 came in and that the next two months brought in \$1500 shows that there are a great many members to be obtained.

Because of the fact that several of the Class secretaries have been troubled in getting a sufficient number of Class notes from the members of the Class, letters were written to those secretaries who usually have exceptionally good sets of notes in the REVIEW. These men were asked to explain the method used in obtaining Class notes. At the present time a compilation is being made of this information, and mimeographed sheets will be sent out to each secretary explaining how the others managed their Classes.

The mere fact that the secretaries felt that some one was interested in getting more notes has done a great deal in causing these secretaries to work harder.

The Class of 1921 presented a very typical problem in the getting of Class notes. The elected secretary was away all summer and it was impossible to locate him. However, several other men in the Class were found who were willing to take upon themselves the job of securing the notes. When the secretary was finally located and informed that he was expected to get some notes in the October issue, he got in touch with the volunteers and now has a well working organization for gathering Class notes. A system of course secretaries is being developed for the Class of 1921 and is almost complete. Such a plan seems to be the only feasible organization that can be used with the large Classes which are graduating from the Institute at the present time. A man is only well acquainted in his own course; therefore it is desirable to have other courses represented.

Help has been given the editor of THE REVIEW in gathering news of the Institute and providing men to write articles for the REVIEW.

Taken as a whole, the results of the work have been quite encouraging. Many men have been interested in the Association, and additional activity has been started among the Class secretaries. From purely the viewpoint of circulation of the REVIEW, which is the big factor in getting advertising, the campaign appears to have been worth while.

The following recommendations are made as a result of the campaign.

1. THE REVIEW should be changed to a monthly as soon as possible. Next spring appears to be a very feasible time to do this. Most of the alumni complain of the size of the REVIEW and of the historical atmosphere of its contents. A short newsy REVIEW published at more frequent intervals would be more effective, less expensive, and from an advertising and financial viewpoint, more profitable.

2. Until such a time as the REVIEW can be changed to a more frequent date of publication, a monthly letter should be sent to each active Alumni Association, giving live, up-to-the-minute Institute news. These letters would serve as a means of getting the members of the local associations to attend the monthly meetings or dinners.

At the request of the Technology Club of Philadelphia this is being carried out at the present time by the staff of *The Tech*. Summaries

of the monthly events are mailed to as many of the Associations as possible. These reviews are timed to reach the Association the day of the meeting.

3. Bills for dues which are mailed in January should be followed up by a very intensive campaign. The fact that many of the Class secretaries were delinquent with their dues and were unaware of this fact proves that many of the alumni think they have paid when they have not.

4. All future graduating Classes should elect a Class secretary and course secretaries. Too much emphasis cannot be laid on the importance of a well working system of Class secretaries. Upon a secretary depends to a large extent the interest in the Alumni Association which the other members of the Class will show.

5. Due to the difficulty in effectively reaching men after they have graduated, it would be a most important move if in the graduating dues of every man in the senior Class \$3.00 would be included for his first year's membership in the Association. The system of student tax has paved the way for this and once in the habit of receiving THE REVIEW and paying dues, a man will very probably continue an active member of the Association.

6. Each spring the Alumni Association ought to have a meeting, smoker, or dinner with the graduating Class, welcoming the future graduates as members of the Association and getting them interested as much as possible.

A GREAT SCULPTOR'S PRAISE

"THE new buildings for the most part show a thorough understanding of the best examples in modern architecture, and one group in particular, that of the Institute of Technology, is the finest group of its kind I can remember in any modern city in the world, not only in its happy site but in its design and in the carrying out of every detail of the architect." — WILLIAM ORDWAY PARTRIDGE, in an interview in *The Boston Globe*.

PASTORAL LETTER

The new President of the Alumni Association sends the following message to all graduates and former students of Technology:

Cambridge, Mass.

To Tech Men, Everywhere:

This letter comes to you because you are one of the fourteen thousand who have gone out from Technology inspired by its ideals and trained to serve the community in accordance with them. The splendid quality of the service you have rendered is the foundation of the present high reputation of the school. If you take pride in that reputation, if old associations count something with you as they must, you are or you ought to be, a member of the organization which ties us all together, which integrates our influence in Technology affairs and which has for its sole purpose the advancement of the interests of the Institute and its alumni.

Though there are fourteen thousand of us, the membership in the Technology Alumni Association is only about seven thousand. It is carrying its heavy load on about one-half its potential man-power. If you are one of those who are backing the Association and working with it I send you thanks and appreciation. If you are an outsider with no direct line of contact with your classmates and the school, I want to tell you that you are missing a lot and that we need your help.

It must be awful lonesome to be a Tech man all by yourself, and Walter Humphreys will kill a fatted calf and start the rejoicing if you will write him and say that you wish to join the Association. If you are already a member go out into the byways and hedges and bring in the prodigal. The Biblical reference may be inexact but we miss him and we need him.

Yours faithfully,

(Signed) ARTHUR D. LITTLE,
President Technology Alumni Association.

FOCH — AND A MORAL

GENERAL FOCH was entertained at Harvard. Also at Boston University and Boston College. Each of these institutions staged an interesting and dignified ceremony of which he was the center, a large convocation where undergraduates and Faculty might see and hear him. During his twelve hours in Boston he stopped for an appreciable time at these schools. He did not stop at Technology. He didn't even hesitate. Presumably he wasn't asked.

The students at Harvard, Boston College and Boston University were fortunate enough to have that educational experience which is an inevitable part of the thought and emotion roused by the personality of a great man. They heard addresses that spurred their minds. They were led to remember, to reflect, to think forward. The students at Technology suffered no interruption in their usual hours of laboratory and drawing. They were snugly and securely isolated from the chaotic, interesting outside world of ideas, of emotions, of citizenship.

General Foch carried away with him from Boston some impressions of three great Massachusetts schools. He is by way of being an important man in Europe; his memories will carry weight. He will be able to tell France nothing about Technology. As generalissimo of a great war in which engineering played a major part he might have been interested in seeing Technology and the kind of men it turns out. But Technology wasn't interested in Foch.

Incidentally, Boston University, Boston College and Harvard did something to make the public recognize they were public institutions that deservedly claimed a share in representing the Commonwealth on important occasions. They aided in giving our visitor a picture of the State of Massachusetts. They gave the public other gathering places, impressed themselves on the public as schools to which it is wise to send boys and girls. Naturally they got a good deal of the best sort of publicity in the newspapers, that easy publicity which newspapers are always ready to give when an institution assumes a public dignity and shares its ceremonies with the public that supports it.

Technology played its usual self-contained, peculiarly private, peculiarly indifferent, peculiarly obscure role.

It may be taken as a commonplace that every visitor of distinction to Boston is taken to Harvard and there treated with some signs of interest and ceremony, often with a great deal. The fact always gets into the papers; it is good picturesque publicity. Occasionally a distinguished visitor finds his way to Technology, is taken on a brisk and anonymous walk through the corridors and laboratories, given his lunch in Walker, and dismissed. Last June a distinguished Chinese educator, Chancellor of the University of Peking, visited both Technology and Harvard. It was near graduation time; the officers of both

institutions were undoubtedly busy and harrassed. But his reception at Technology was almost absurdly impromptu, careless and undignified. At Harvard, where apparently some one has these things in mind, a simple reception was arranged for him, nothing elaborate, but dignified, worthy of a great institution. When the chancellor retails his notions about the two schools to his fellow educators in China, we at Technology are going to seem churlish.

The students at Harvard have an opportunity at the Harvard Union to hear speeches from more distinguished and interesting men in one year than Tech boys hear in a decade. In recent years we have had a small number of interesting and stimulating men, but, after all, second raters; college evangelists, reformed lumberjacks, efficiency managers. Harvard men may, if they choose, hear the ideas of Lord Bryce, the acknowledged world authority on our democracy, of Hoover, of Galsworthy. A considerable proportion of the great men at the Disarmament Conference will no doubt see Harvard and be seen — and heard. One need not fear of losing a bet of any size that the student body of Technology will not be permitted to be disturbed in any way by their presence — even if Tech men *did* cut classes right and left merely to see Foch.

A city set on a hill cannot be hid. What man will hide his light under a bushel? The ostrich with its head in the sand is a peculiarly useless bird. Technology has been believing for half a century that frosty sophistry of Emerson that if a man does anything better than any one else, even makes a better mouse-trap, the world will wear a path to his door. Politely, and with all possible respect to Emerson, rats! Not unless he blazes the trail, sticks up a sign-post or two, lets the world know he is alive. The World War gave us the necessary publicity; our growth since has been proportionately rapid. All America, all the world knows us as a great public institution — all except our immediate neighbors. To Massachusetts, Harvard is a great public institution; it does things in the open; it lets the world in on the job of educating young men. Technology still, even after the war, has something of the stale reputation of the seventies and eighties — a very private, unostentatious, morbidly reticent, thoroughly utilitarian place, that doesn't believe in stopping work for holidays, or ceremonies or any of those occasions that bring men out of their specialities, out of their narrow, personal preoccupations, and make them equal and fraternal in the common interests of citizen, of religion, of ideas and ideals.

To this latter world Technology is still a stranger and an alien. It sits tight in the laboratory, invincibly indifferent to what is going on outside, invincibly ignorant of the importance of the things that every one else is interested in, colossally pleased with itself in a dull kind of way that it is sticking to the job, modestly, nobly, self-sacrificingly, mechanically sticking to the job, while outside the world is alive, perplexed and clamorous and eager about the great uncertainties, the things that cannot be solved with slide-rules and test-tubes, that

need meeting places and those ceremonies which stimulate reverent memory and pledges for the future, and above all, the vivid personalities and weighed counsels of those whom our generation calls great.

It is not the students' fault that these things have not their proper place in the Technology conception of an education — education as opposed to smooth manual or mental craftsmanship or to slick training in the old Yankee art of horse-swapping, which we call the psychology of salesmanship.

It is not the students' fault that they hear no one worth hearing outside the immediate academic circle, that they are not penetrated with the living ideas of those men whose lives are wider and whose ideas are more dynamic, even, than those of professors. It is not the students' fault that distinguished men do not come as naturally and as frequently to Technology as to Harvard or any other great university, that we do not get the easy and interesting and valuable publicity which such a tradition freely offers us.

It is the fault of the Faculty, of the administrative authorities, of the Corporation. Chiefly of the Faculty. It is due either to a false conception of what an education should be, or to a mistaken, penny-saving principle of economy, or simply to sheer ingrained indifference, mental laziness, cynical lack of interest in anything that goes on outside the four walls of one office or laboratory. It means that an engineering professor has no need or call to bother himself about the things that interest men of other professions, other academic branches; it means that he will if possible try to make his students as indifferent, as unimaginative as he is.

To make a change might occasionally upset our sacred schedule and tabular view a bit. So be it! It might cost money. Agreed. Mr. Munroe said recently at a Council meeting that the Princeton organization for keeping up alumni spirit was tremendously expensive but had brought millions in to Princeton. Does any one doubt that for every dollar Harvard spends on ceremonies of this kind, it gets back indirectly a thousand? It wouldn't do Technology any harm to be a little more in the limelight when the endowments are passed round. Harvard manufactures her own limelight. Technology waits for God's sunshine.

But, one imagines, we shall be willing to upset our schedule, spend money, before we shall be willing to admit that there are in education, even engineering education, more things than are dreamed of in our philosophy, Horatio. That a tradition of dignified and spacious ceremonial is a part of education, that the entertaining of the stranger at our gates, the functioning as a public institution on occasions of public ceremony and rejoicing, the imperceptible but radical influence upon young men of the considered counsel of notable men and women, the planting of these facts more and more frequently in the careless public mind — these are not foolishness, frills, flummery, vain things, but essentials in the position to which the Institute of Technology aspires.

R. E. R.

DICKY'S DECISION

A Story of Technology

By PERCY MARKS

Instructor in the English Department from 1915 to 1919

Published in THE BLUE BOOK Magazine for June, 1921 and reprinted by permission.

Recently Technology has been getting into the world of fiction as the place where successful young engineers come from. In Ethel Barrymore's brilliant comedy "Déclassée," the hero (who began as a professional cheater at cards) wins his spurs as a wealthy miner through the influence of the girl and dear old "Boston Tech." And so it goes.

Seldom, however, do we have a college story by an insider who knows the place. "Dicky's Decision," the first real Tech story so far as we know, was written by Percy Marks, whom everybody in one college generation knew, and who had the great advantage of two points of view: he was a successful instructor and he knew the undergraduate life and point of view as very few instructors ever know it. He was the intimate confidant of many undergraduates and the close friend of many more. He left Technology to make writing his profession. For this reason we feel the story has a legitimate place in the Technology Review.—THE EDITOR.

GARNETT had promised Dicky Carlton that he would come back some day — and here he was. He had told his friends in Buenos Aires that he was going to Boston to meet his old classmates and witness the dedication of the new buildings of the Massachusetts Institute of Technology, his alma mater. That was only part of the truth, really only a very small part. He had come to see Dicky Carlton and get his decision. He felt sure that he knew what Dicky would say but he wanted above all things to hear him say it.

He couldn't tell his friends, or his wife, for that matter, the old unhappy story. Louise would understand — but why kick himself off a pedestal that he had perched on so perilously for over twenty years? He couldn't tell people that he was going to take that long journey from the tip of South America to the Hub just to hear a little old professor say: "Well done!" It sounded silly — sentimental. And yet, in the striving of the past twenty years through which he had gained riches and a considerable amount of fame, he had never met a problem without thinking of Dicky, and his decision was always made the way he thought would meet with Dicky's approval. It hadn't always been good business. He had lost plenty of money by it; but then, how about Dicky's honor? Surely it was worth a thousand times what he had lost.

Garnett knew that he was often considered sentimental, quixotic. Perhaps he was. He didn't care. The important thing was what Dicky thought, and here he had been in Boston two days and hadn't been able to see him yet. He had glimpsed him for an instant at Nantasket the day before, but before he could reach him he had disappeared in the crowd. Garnett made up his mind that no crowd would get in his way tonight. He was going to talk with Dicky Carlton even if he had to knock down every joyous grad, callow undergraduate, and staid prof to get to him.

"It certainly is quite some place, isn't it?" Garnett's neighbor interrupted his dreaming.

"Greater than I ever expected," he replied and for the first time really looked around him. They were in the great court of the new Tech buildings, the sides of which were hidden by grandstands banked with people. The smaller courts faded away into dim grayness under the pale moonlight.

Garnett and his friend were attracted by two powerful searchlights, one on each side of the dome, which were sweeping the sky in brilliant arcs. Far across the river they could see another searchlight, and they knew that it was on the old Rogers Building, the heart and home of their alma mater. Fifty classes had got their training for life, their ideals, and a good share of their manhood in that old building, and now all that remained was a lone light that flared slowly and aimlessly across the heavens, wavering back and forth as if it were hunting, hunting — and never touching the two brighter paths of light that shone so bravely from the dome of the "New 'Stute."

Garnett watched the solitary beam of light for a few minutes and then said to his companion: "Looks like a lost soul, doesn't it?"

"Un-huh!" the other grunted softly. "Seems as if somehow it was looking for a home. Poor old Rogers."

From one of the smaller courts a thin streak of fire shot upward. Up, up until it reached the dull dome of the heavens, curved against it, poised an instant, and then — bang! a great cluster of fiery jewels illumined the sky. Boom! Boom! Another and yet another! A regular volley of rockets bombarded the moon until it paled in shame behind the scintillating brilliance of the stars from the earth.

The *Bucentaur*, Tech's white ship, navigated its perilous trip across the Charles in safety, bringing the faculty to its new home. In the long line of black-robed professors Garnett searched for Dicky Carlton and finally found him. He followed him with his eyes until he was seated under the colonnade. That spot was Garnett's goal.

The lights went out. The white streak from the Rogers Building wavered a moment across the sky — and died. Seemingly out of nowhere shot a throng of boys bearing smoking torches. They crowded together in the immense smooth circle in the center of the court. In an instant they were lost under a dense curtain of gray smoke which gradually merged into rolling clouds of red, green, yellow, blue, and orange as soft-colored lights streamed down upon it. Slowly the misty curtain

billowed upward, and below it dozens of half-naked lads shot in and out, back and forth, waving floating mantles of varicolored gauze, ranging from the burning red of Fire to the pale gray of Water. Out of the swirling Chaos the figures drifted into groups — the Elements.

The sudden strains of a great orchestra broke the silence. The boys paused for an instant, and then leaping wildly and trailing their gauzy veils behind them they whirled around the circle. The music rose to a shriek; the dancers swirled in and out into a very ecstasy of motion — for Tech's Masque of Science had begun.

* * * * *

Richard Carlton glanced at his watch, muttered "Nearly nine," thrust a small book in his pocket, and hurried out of his office. In the main hallway he met a colleague who grinned cheerfully at him.

"Why the gloom, Dicky?" Everybody called Carlton "Dicky." Even the students did — behind his back.

"Damn the proctoring," responded Carlton. "An eternity of three hours doing nothing but watch miserable students try to solve problems that they could do in half the time under normal conditions. Examinations ought to be prohibited by law just to save us from proctoring. I expect to acquire paralysis from posing for three hours as a debilitated jellyfish."

"G'long with ye," said his friend with a laugh. "You're late now."

"S'pose I am," agreed Carlton, and he ran hastily up the long stairway of the Rogers Building. Several students grinned at him as he flashed by. They liked him. He avoided the pomposity and air of conscious rectitude so common among young college instructors in the middle nineties — and today.

Five minutes later he had distributed the papers and forty seniors sat knitting their brows over their last examination. Carlton leaned back in his chair and looked the class over, almost envying them. They at least would find the three hours short. And he? He pulled out his watch. Five minutes past nine. "Two hours and fifty minutes to go," he groaned inwardly.

One by one he looked the boys over. He knew them all. Most of them had been in his classes four years before when he had first begun to teach.

His glance rested on a towheaded lad who was rapidly devouring his pencil. "Huh," thought Carlton, "he'll earn five per until his dying day, marry a fat comfortable woman, have eight youngsters, vote a straight ticket, and count when he waltzes."

The unfortunate student, all unconscious of what was to befall him, suddenly quit chewing his pencil, wiped his mouth with the back of his hand, and began to write. Carlton gave an irritated shrug of his thin shoulders and looked gratefully at a homely, unkempt little chap in the rear of the room.

"Ah, Vance," he mused, "I'm looking for great things from you. You're going to be either a glorious success or a magnificent failure. I believe that you're so much of a poet that you'll be a great engineer."

And so on he went, mentally comparing, praising, criticising, until his wandering glance rested on the dark head of Austin Garnett. All in all, Garnett was by far the most promising man in the room. Not handsome but with a clean-cut sort of face, firm mouth, and clear, straightforward brown eyes that invited confidence and trust. He had worked his way through the Institute but had found time to become the most prominent man in his class. He was not a sensational college hero; there was nothing startling about him, not even his neckties. In fact, he was naturally shy, but through his shyness shone a winning personality, which, combined with a natural gift of making warring factions see each other's point of view, had gained for him the respect of not only the students but the faculty.

"You'll make good, Garnett," thought Carlton, "because you'll always treat your inferiors as if they were gentlemen, and because, dog-gone it, you couldn't be anything but an honest gentleman, no matter what happened."

He and Garnett had been friends for three years and he knew most of the boy's secrets. Garnett had told him all about the splendid job that was waiting for him when he got his degree, and about "the most wonderful girl in the world" who was going to marry him two weeks after graduation so that she could sail with him for Buenos Aires.

"She said she didn't care if the job was in Thibet as long as I'd take her along," he had confided to Carlton, his eyes shining joyously. He was almost pathetically happy.

And now as Carlton watched the boy working at his examination, the one last obstacle to be vaulted with the degree, the job, and the girl waiting on the other side, he mentally patted the lad on the shoulder and thought a bit wistfully: "I sort o' envy you, old man, but you deserve every bit of it."

He took the little book out of his coat pocket. It was against the rules for proctors to read, but only the young and earnest assistants ever observed the rule. He settled down comfortably in his chair, opened the book, and then sat suddenly erect with a soft grunt of disgust. He had intended to bring a collection of short stories, but in his haste had snatched up a book of logarithms instead. He snapped the book shut, thrust it in his pocket, strolled to the rear of the room, and for an endless half-hour leaned in a window watching the crowds on Boylston Street.

And so seconds, minutes, and even hours crawled by. By eleven-thirty he had forecast the future of every boy in the room, read all the signs on the opposite side of the street, scrawled numberless pictures on the backs of examination papers, and finally leaned back in his chair completely lost in a day-dream about "the most wonderful girl in the world" who didn't look in the least like Garnett's fiancée.

Still lost in rosy clouds he let his eyes travel mechanically over the class. Suddenly he jerked himself erect. Unpleasant and unbelievable reality shattered his dream. He could not believe what he undoubtedly saw: Austin Garnett was looking intently at his neighbor's paper!

Carlton stared at the boy. Slowly Garnett looked up. His eyes met Carlton's. For an instant he gazed blankly before him; then his eyes widened with understanding. The hot blood rushed to his forehead, and with an almost audible gulp he slumped back in his chair. Suddenly he was chalky gray.

Carlton sat very still trying to think. Austin Garnett cheating! It wasn't possible even if he had seen it. But he *had* seen it. What should he do? He couldn't expose the boy to the class. He couldn't do that to anybody, and to Garnett — never! He ran a despairing hand through his thin blond hair and stared at the boy who remained white and motionless his eyes fixed on the floor.

Finally Carlton scribbled on a scrap of paper: "Hand in your exam and wait for me in my office," and walking casually by Garnett placed it on the broad arm of his chair. Carlton kept on and waited in the back of the room. The boy read the note, stuck it in his pocket, gathered up his belongings, put his examination paper on the desk, and, his shoulders sagging wearily, left the room.

Twenty minutes later Carlton entered his office. Garnett was there, his young face white and strained, every line of his body expressive of defeated hopes and broken dreams. He had had twenty minutes of thinking and realization, and they had done their work. He was tense to the snapping point.

He stood up respectfully when he saw Carlton who looked as worried as the boy did himself. "Sit down, Garnett," he said not unkindly, and dropped his own tired body into his desk chair.

Garnett obeyed and they sat there, each waiting for the other to speak, each dreading what the other would say. Carlton prayed that Garnett would deny it — and was afraid that he would.

The minutes passed in tense and finally unbearable silence. Garnett gripped his hands together and looked up. "Well, Mr. Carlton?" he asked softly, his voice quivering.

"I don't know. I don't know," muttered Carlton. Then he gathered himself together with an obvious effort and leaned forward. "Tell me, Garnett," he urged, "did you really do it? I just can't believe it." He was almost pleading.

Garnett nodded. "I did," he whispered, and then added more audibly: "I can't believe it either."

Again there was a long silence while Garnett clasped and unclasped his fingers. Finally Carlton spoke. "Tell me about it, wont you?" he asked gently.

The boy wet his dry lips with the tip of his tongue and leaned forward. "There isn't much to tell, I'm afraid," he answered. "I had to have a formula for that last problem. I knew that I knew it but I couldn't think of it. I don't know why not — but I couldn't. I thought

and thought and thought. I was looking out of the window, past Grayson you know, and as I brought my eyes back my glance accidentally fell on Grayson's paper — and I saw that formula all written out. I never thought. I simply wasn't in the examination room. All I knew was that there was that formula. It didn't have anything to do with the exam. It was just the formula that interested me. The thing seemed to hypnotize me; I couldn't take my eyes off of it. I looked at every letter and figure — and — and then I felt your eyes on me — and suddenly I realized where I was." He looked at the floor for a minute and then blurted out: "Tell me, what are you going to do?"

"I don't know," Carlton replied, "I don't know. I understand perfectly how it happened and I believe you absolutely. Would you have used the formula?"

"I don't know," Garnett answered honestly. "You see, I really knew the thing — it had just escaped me. I wasn't conscious of looking at Grayson's paper. I might have used it without thinking what I had done, just as I read it without realizing what I was doing."

"I didn't report it to Dr. Saunders," explained Carlton. "I wanted to speak to you first. He will correct your paper along with the others. But if I tell him it'll be serious, Garnett, damn serious."

"I — I know," the boy faltered, his head drooping hopelessly. Suddenly he sat erect. "Oh, Mr. Carlton, what have I done? What have I done? You can't imagine what this means to me." His voice broke dangerously. "I can't graduate. I'll be disgraced — everybody'll know. I'll lose my job and — and — Louise. I — I —" And the unbearable tension of the last half-hour snapped. With a sobbing gulp he buried his head in his arms on the desk. His agony over the sudden smashing of his dreams, of the hopes for everything in life that he held dear tore from him in great wrenching sobs.

Deeply moved Carlton patted him on the shoulder. "Don't, Austin," he begged, but the boy paid no heed.

Carlton walked to the window. He couldn't stand that terrible sobbing. It hurt. Overcome with compassion he strode back to Garnett. "Listen," he cried, "listen!" The boy didn't move and Carlton clutched his shoulder. "Damn it, man, I'm not going to tell! Do you understand? I'm not going to tell anybody!"

Garnett raised his head and stared at Carlton with inflamed and streaming eyes. His mouth twitched convulsively but he said nothing. There was only a sort of blank stupefaction in his face.

"I'm not going to tell," Carlton repeated. "Please quit crying. I'm not going to tell."

Garnett's eyes widened in astounded understanding. He brushed at the tears. "Wha — what?" he stuttered. "Why — why you've got to. You're honor-bound."

Carlton flushed. "I, I know it, Garnett," he said miserably, "and I'm sorry you had to remind me of it, but I can't look on this as real cheating. It's a mean thing to ask you, but what would you do if you were in my place?"

Garnett dried his eyes and wiped his face with his handkerchief, then looked squarely at Carlton and answered firmly: "I'd tell, Mr. Carlton. That is what you are in the examination room for. I did not cheat in spirit, but then I did in fact, and I guess I'll have to take my medicine." His bravery broke a little. "It's going to be hard," his lower lip trembling pitifully.

Carlton sat down and thought for a moment before he spoke. "You're more honest than I am, Austin," he said quietly, "and you've taught me a lesson. I shall report it to keep both your respect and my own, but I want you to know that I'll do my best to make the Dean understand the situation and I'm sure he'll exonerate you."

"He doesn't decide," the boy answered wearily. "A committee does, and they won't exonerate me. They never do. Please make them hurry up. It's going to be hell waiting, Mr. Carlton, hell!" He hurried to the door. "I—I—good-by." And he was gone.

Carlton reported the case immediately. The Dean shook his head. "I know how you feel, Carlton," he said, "but it is very serious. If he were anything but a senior I'd take the matter in my own hands, have him failed in the course and put on probation; but a failure would prohibit his graduation, which would be the same thing as a public announcement of what he has done because there isn't a senior who doesn't know that Garnett could pass that course with perfect ease. He has unfortunately made a reputation for himself as a student. No, the only thing that I can do is to take it to the committee and it will do one of two things: either exonerate him or expel him from the Institute."

"What do you think they will do?" Carlton asked eagerly.

"I don't see how they can exonerate him," the Dean responded slowly. "You see, by his own confession he cheated, and however admirable his attitude may be, the fact remains, and the rule in regard to cheating in examinations is very strict. It has to be."

"It doesn't seem quite right to me," objected Carlton. "There is cheating and cheating—but what's the use of talking about it? It's out of my hands."

The Dean nodded. "I'm afraid it is, Carlton. However, I shall want you at the meeting to give any necessary explanations. It will be here tomorrow morning at eleven."

Carlton spent the rest of the day trying to work but really wondering what Austin Garnett was doing. He wondered most of the night, and entered the Dean's office the next morning nervous and strung to the breaking point. For nearly twenty-four hours he had been thinking over and over: "Why in the devil did I say anything to Garnett in the first place?"

The committee of five had assembled when he arrived. The Dean asked him to be seated, and then carefully and sympathetically explained the case.

"Oh, not Garnett," exclaimed Dr. Saunders. "That isn't like him. Besides, he didn't need any help to pass."

"Well, well, you never can tell," his neighbor muttered.

"The last man I'd have expected it from," said a third professor. "It is hard to believe," agreed the Dean, "and it is unusually deplorable in view of Garnett's exceptional prominence and popularity. Any action except complete exoneration will be equal to a public dismissal. I ask the committee to take his very manly attitude into consideration."

For several minutes the five men sat silent thinking while Carlton scanned their faces and tried to read their thoughts. All of the men looked serious and disturbed. He began to feel very weak as he noticed them shaking their heads and exchanging regretful glances.

"Too bad, too bad," murmured one old professor sadly.

Professor Randall, a great scientist but a testy and exacting teacher, spoke decisively. "I can't see that Garnett's attitude has anything to do with it," he said sternly. "It does not mitigate in any way what he has done. Nor should the question of his popularity influence our action in the least. We must treat him as an ordinary student and the action of the committee in such cases has always been very swift and very severe. I see no reason for making an exception of this case."

Carlton's hopes sank as the others nodded or spoke in agreement.

"Nevertheless," said Dr. Saunders, "we must remember the boy somewhat. He has done excellent work in the course, and I should gladly have passed him without an examination. It is very hard for me to believe that he actually read another student's paper even when he admits that he did. It's not like Garnett."

"We have no time for sentimentality," retorted Professor Randall. "The important thing is not the student but the principle. As sorry as we may feel for Garnett, we must remember that we have a certain duty to the Institute and that our principle and rule of absolute honesty is always greater and more important than any student."

"I suppose you are right," agreed Dr. Saunders, "but I don't find it easy to believe."

"Yes, he is right," said the man next to Carlton, "and Garnett will have to learn that mere regret will not expiate a sin in a court of law."

"Besides," added Professor Randall, "the very publicity this case is bound to have will undoubtedly do more to blot out what little cheating there is than a dozen minor similar cases." He rose to his feet and said gravely: "Mr. Chairman, I move that the degree of Mr. Austin Garnett be withheld and that he be expelled from the Institute."

Carlton sat in trembling rigidity. The whole discussion seemed so utterly impossible. The angry blood pounded in his temples, and Professor Randall's final remarks broke the last restraining bond of timidity and subordination. Before the motion could be seconded he was on his feet and faced Professor Randall across the table. Small and delicate, he looked like an excited terrier about to attack a cool amused mastiff.

"Mr. Chairman," he cried, "may I say a few words?"

The Dean nodded.

"I know that I have no business to say anything," said Carlton

excitedly. "I understand that I was asked here merely as a witness; but I feel that I have the right to take exception to some of the things that have been said. Right or not, I must speak or be ashamed until my dying day."

He glared at Professor Randall who smiled in quiet superiority and remarked with evident amusement: "We have no objection to hearing you, Mr. Carlton, but there is no reason for your undue excitement."

"Undue excitement!" cried Carlton. "That is just what irritates me. Here you sit, five supposedly human beings, and quietly, placidly break a man. Yes, break him, and after you've done it you'll go out of here smug in your own complacency and virtue, happy because you've upheld a principle, and content because you've cleansed your systems of trite, dead, rotting truisms and proverbs. Oh, yes, I know that I oughtn't to say such things," he interjected as the Dean frowned, "but I've got to get them out of my system if I'm dismissed tomorrow. I'd rather be dismissed than ashamed."

"Go on, Mr. Carlton," said Professor Randall much too pleasantly. "You don't know how much you interest me."

"I don't doubt it," retorted Carlton. "I probably amuse you, too. Well, I'm glad to if you'll only let me have my say." He turned to the Dean. "Mr. Chairman," he said appealingly, "you know Garnett. You know what a straightforward upright chap he is, and you know how hard he has had to work to make his way. You know, too, what it will mean to him if he is expelled or his degree withheld. Can you sit by and see a man like that broken?"

"I'm very sorry, Mr. Carlton," responded the Dean, "but the matter is no longer in my hands. I have to abide by whatever the committee rules."

"You are dealing in hyperboles and indulging in heroics, Mr. Carlton," interposed Professor Randall. "We are not breaking a man. If there is any breaking he has done it himself."

Carlton placed both hands on the table and leaned forward, his blue eyes dark with anger and emotion. "You may be human, Mr. Randall," he said in a soft, tense voice, "but I doubt it. You are the head of my department, my chief, and before I was your colleague I was your student for five years. As a teacher I respect you; but as a man you simply don't exist. You are too upright to be human; you are a mass of formulae and principles. You teach by the fear-of-God method and get results of a kind. You grind facts into the boys — but they don't admire you. They don't even think of you as a man; you are just a professor and one to be feared rather than respected. I know; I've been one of them myself."

The Dean raised his hand warningly. Professor Randall flushed and broke out angrily: "You are going too far, Mr. Carlton. Your personalities are improper and insolent. I am not the man to stand for such remarks from a member of my staff."

"I know it," Carlton snapped back, "but it doesn't interest me. I expect you to have me discharged. All right, go ahead; but for once I

shall have had the satisfaction of saying what I think, and you will have learned something worth your while."

Professor Randall made no reply, and Carlton turned to the other men. "Gentlemen," he said more quietly, "you have permitted Professor Randall to influence you against your own wishes and judgment. You have become so impressed with law that you are forgetting justice. You agreed that principle was always greater than the man and expressed faith in a lot of other truisms equally trite and inept. You seem to have forgotten that you are dealing with an individual, a human being and not just an abstract student. That's the trouble with laws; they are universal and they have to be applied to individuals. I want you gentlemen to remember, too, that if he had denied cheating we couldn't have proved it. He didn't write a thing on that last problem." He turned to Dr. Saunders. "There were ten problems, Dr. Saunders. How many did he have right?"

"Nine," responded Dr. Saunders, and then added: "He is a first-class student."

"Nine," repeated Carlton. "Ninety per cent. He didn't even need that last problem, and Dr. Saunders has already said that he would gladly have passed him without an examination. Why, gentlemen, you aren't even logical."

Professor Randall rumbled his mane of white hair and scowled. Over and over he was thinking: "Not a man — just a professor. A mass of formulae and principles. They don't even like you." It cut deep.

Suddenly Carlton's forced calm left him. He smashed both hands violently on the table and cried: "I don't give a damn about the logic of the thing, though. I'm thinking about Garnett. I'm thinking that he's going to be publicly disgraced, that he's going to lose his job, his degree, and probably the woman that he's going to marry. And what's he going to lose them for? For being honest; that's what for. Because he admitted something that he could easily have denied. Oh, if you men could only have seen that boy in my office, if you could have seen him cry, and when he was just shaking all over with sobs he told me to go ahead and report him because I was honor-bound. That's the kind of man you are willing to break. *My honor!* I swear that I'll stake my honor on that man to the last notch!"

He was shaking with emotion and passion. "Oh, gentlemen," he cried, "you can't do such a thing — you can't!"

"I agree with Mr. Carlton," said the Dean quietly, more moved than he cared to show.

"Mr. Chairman, may I have the floor?" It was Professor Randall speaking.

The Dean nodded. Professor Randall rose slowly to his feet, brushed back his hair from his forehead, and faced Carlton.

"Mr. Chairman and members of the committee," he began heavily, "Mr. Carlton has said some very surprising and unpleasant things."

He addressed Carlton directly. "Mr. Carlton," he said, "you have been guilty today of rank insubordination, insubordination such as I



THE FIRST MARGARET CHENEY ROOM, IN THE WALKER BUILDING



THE SECOND MARGARET CHENEY ROOM, PIERCE BUILDING, TRINITY PLACE

THE WOMEN'S ROOM IN THE OLD INSTITUTE

have never met in my many years as head of our department. Somehow I respect you for it. You were willing to give your own chance for that of another man, and that takes courage. You have hurt me intensely because after all I am intensely human. More than that, your sincerity has moved me and made me ashamed. You are right; it is not our place to judge." He turned to the Dean. "Mr. Chairman, I wish to rescind my former motion. I now move that we completely exonerate Mr. Austin Garnett from the charge of dishonesty."

The men, who had been tense with expectation and surprise, suddenly relaxed. Dr. Saunders' huge sigh of relief could be heard above the general rustle. Almost before Carlton realized what had happened the motion had been seconded and unanimously carried. A great lump choked his throat. He swallowed very hard and then said brokenly: "Gentlemen, I can't thank you. I — I — Mr. Randall, I'm ashamed — I — I — apologize." Unable to say more, shaken and moved beyond control, he rushed out of the room.

By the middle of the afternoon Carlton had corrected his last examination paper and made out his last grade. Completely exhausted he slumped forward on to the desk, his head in his arms. Five minutes later there was a knock on the door. Wearily he straightened up and called: "Come in."

Austin Garnett stood in the doorway, his eyes shining, his lips trembling with joy.

"Ah, Garnett," Carlton said, jumping up and offering his hand, "I am glad to see you. I want to congratulate you. I knew that the committee would understand."

Garnett gripped Carlton's hand hard. "Thanks, Mr. Carlton," he responded, "thanks awfully. But please don't bluff that way. It's fine — but, well — I've just come from the Dean and he told me that I should have been expelled if it hadn't been for you. He told me that you staked your job, even your honor, on me. I — I can't thank you. I don't know how."

"Please don't," replied Carlton miserably embarrassed. "I'm not worrying about my honor. I'm sure that you'll be worthy of everything that I said. I believe in you, Austin."

"Worthy," repeated Garnett softly, "worthy. Worthy of your honor. I'll not forget that, Mr. Carlton, and some day I'll come back to find out if you think I have been."

Carlton laughed to hide his confusion. "I'll be waiting to crown you with laurel," he said with a poor effort at flippancy, "but don't make me wait that long to hear from you. Write once in a while. I'll probably forget to answer but I'll always be mighty interested in what you are doing."

Garnett held out his hand for a farewell shake. "I will. Good-by."
"Good-by, Austin."

The searchlights from the dome swept the heavens again, this time in a single beam of dazzling white. Austin Garnett rose and stretched mightily.

Brushing his way through the crowd he finally reached the colonnade and there found Richard Carlton, looking bent and old, though he wasn't yet fifty. Austin tapped him gently on the shoulder. Carlton peered at him for a moment and then cried: "Austin Garnett, as I live! Man, man, it's good to see you."

"Good," said Garnett, "*good!* Why, I've waited over twenty years for tonight. You got my letters?"

"One a year. I answered sometimes, didn't I?"

"Two," laughed Garnett, and then he flushed. He had always felt sure that he would know what to say when the time came, but now that it had come he felt as awkward and confused as a fourteen-year-old boy. He tugged at his mustache, and half stuttering blurted out: "Mr. Carlton — Professor — oh, hell! — Dicky, you know what I want to know. I guess I'm a fool — but tell me." He half laughed, but his voice quivered with nervous pleading.

Carlton turned to Garnett and without a word held out both hands. Garnett gripped them hard.

"It's been a great evening," Dicky said.

"Hasn't it?" agreed Austin Garnett.

ERECT NEW BUILDING TO HOUSE ORDNANCE COURSE

By the first of November ground was broken and cement poured for a new building at the Institute, designed to house the activities of the men studying ordnance here. These have to do with tractors, gas engines and tanks used by the Ordnance Department and their operation and testing. The need for the new building arose from the incorporation in the Institute's work of the Ordnance School of Application, located here, and the Ordnance School of Technology, located at the Watertown Arsenal. To these schools officers of the United States Army are detailed for instruction and the new building will have facilities for sending through in five or six weeks a group of twenty-seven officers, who, while they are at the Institute, give all their time to the work. The first use of it will be made early next summer.

The building will be forty-five by ninety feet in size and one story high. It will be built in three bays, each fifteen feet wide, and the centre bay will have large sliding doors at each end. In the two side bays will be I-beam trolleys to facilitate the moving of ordnance machinery. All the piping will be carried in trenches under the concrete floor. The structure is expected to be up before cold weather.

HISTORY OF THE MARGARET CHENEY READING ROOM

Compiled by Mrs. Charles Winthrop Sawyer and Miss Susan Minns

In a paper read at the anniversary of the Women's Education Association, held in 1921, Miss Susan Minns, a charter member of that Association, writes:

"When I recall the memory of the august and generous women who were its founders, I feel that the early days of this society were never surpassed. It is not for us to enumerate the many seeds they planted, nor tell into what hardy trees they developed. The one thing that was impressed upon me by Mrs. Wells (Kate Gannett) and others, was that this association was not only for the better and broader education of women, but for their higher education, that any woman who had the ability and wished it, should have the opportunity to carry her education to the highest point, as a man might, and they held themselves ready, knowing the hearts of women, to forward this wish.

In 1868, the Massachusetts Institute of Technology, founded in 1864, graduated its first class of young men, fourteen in number. Four years later, in 1872, a student of Vassar College, Miss Ellen H. Swallow, with the degree of A.B., applied to Technology for the opportunity to study advanced chemistry and before long a few other women followed her example. This application of a woman student of high standing aroused much interest in Technology and seemed the very case for which the Women's Education Association had been waiting. They came to the assistance of Technology and bore the expense of fitting up the lower story of the Springfield Street school for the study of chemistry. It was a great success, this laboratory, with large classes every year.

The Report of Technology for 1876 contains, 'At the request of the Women's Education Association of Boston, and with its generous co-operation, special laboratories for the instruction of women, are provided.'

Professor Ordway was in charge and with him was Ellen H. Swallow, later Mrs. Ellen H. Richards.

This little laboratory, known as the Women's Laboratory, a one-story building of four rooms, was taken down later to make room for the Walker Building. The first class numbered seventeen women. There were many more later. Mrs. Richards, who gave herself up devotedly to these students, was much concerned about their welfare."

In 1882 a new building, the Walker Building, was under way and we find the following among Mrs. Richard's papers written at that time: "The question of space in the new building for the accommodation of women students, has been weighing upon my mind for the last two or

three weeks, and after consultation with General Walker,— Miss Crocker, Miss Abby May, Miss Florence Cushing and myself have constituted ourselves a self-constituted committee to obtain subscriptions from women interested in the education of women, towards a small sum, say \$8,000 or \$10,000 which may be put into the hands of the Corporation, in order that they may feel justified in including in the plans suitable toilet rooms in connection with each of the laboratories and a reception room somewhere in the building, which shall be for their use only. If this can be done the Institute can then say that it is in a condition to receive women."

Miss Minns continues, "A member now of the Women's Education Association, Mrs. Richards used to give reports of the students and the work of the Laboratory, at the meetings. This kept alive the interest and also created public opinion, a most important factor."

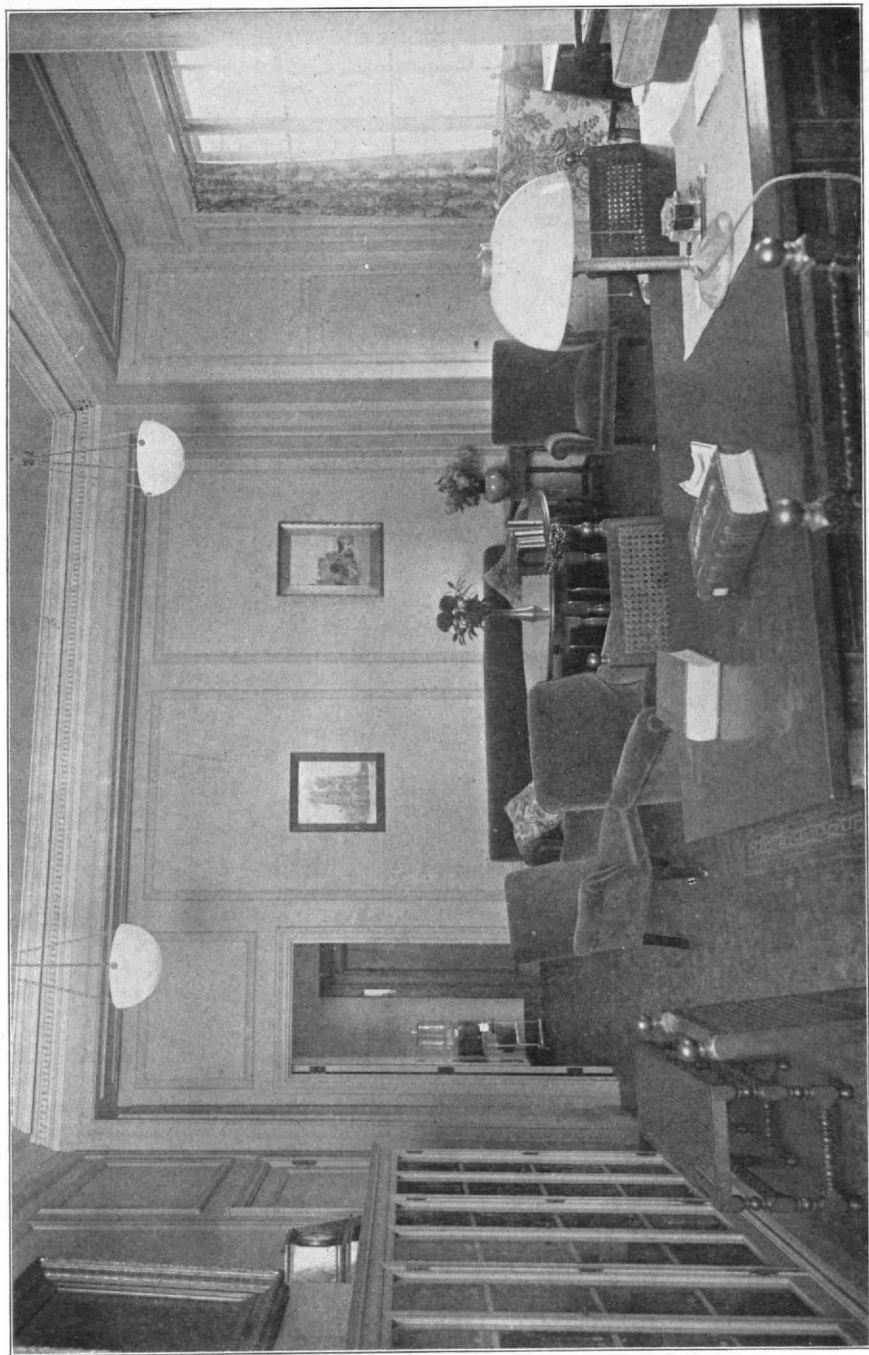
It was only natural, therefore, that the following appeal framed by President Walker, of the Institute for the use of the "self-constituted committee," should reach the Women's Education Association and many outside friends.

"The Corporation of the Massachusetts Institute of Technology is about to erect a new building for the chemical laboratories. It has not funds sufficient to warrant it in making provisions for women, other than those now secured to them in the special laboratory for women. These provisions are now insufficient for even the advanced students in chemistry, who desire instruction, and these students are the only women whom the Institute is pledged to receive.

The chief objection urged by the officers of the Institute to the admission of women to full privileges in all the courses has always been lack of room in the laboratories and want of suitable accommodations in the buildings.

There is reason to believe that if a sum of money were placed in the hands of the Corporation to defray the expenses of such additional accommodations for women as may be deemed by them suitable, a vote of the Board might be secured which would extend all the advantages of the Institute of Technology to women. If such a vote is taken by the Corporation of the Institute of Technology, we the undersigned pledge ourselves to give or to obtain by the first of June, 1882, for the purpose named, the sums stated."

The following contributed: Mrs. Augustus Hemenway, Mrs. George R. Russell, Mrs. Quincy Shaw, Misses Anna and Mary Wigglesworth, Mrs. G. Howland Shaw, Miss Marian Hovey, Miss M. A. Wales, Miss Anna C. Lowell, Mrs. John E. Lodge, Women's Education Association, Mrs. Charles J. Paine, Miss Eunice Hooper, Mrs. Charles Jackson, Dr. G. Tarbell, Mrs. Arthur T. Lyman, Mrs. and Miss Tappan, Mrs. and Miss Frothingham, Mrs. Bartold Schlesinger, Mrs. Ephraim Gurney, Mrs. T. Cole, Mrs. Walker and Miss Mather, Miss Mary W. Whitney, Miss Sohler, The Misses Sever, Miss Lucretia Crocker, Mrs. Alford, Mrs. C. C. Smith, Miss A. D. Adams, Mrs. Lowe, Mrs. G. W. Hammond, Miss Ellen Mason, Mrs. William Endicott, Miss Lucy Ellis, Mrs. Ellen



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THE MARGARET CHENEY ROOM TODAY

H. Richards, Mrs. J. Huntington Wolcott, Mrs. Wadsworth, Mrs. M. D. Kimball, Miss Wales, Mrs. Samuel Johnson, Jr., Miss Harriet Gray, Miss Howes, Miss Bancroft, Mrs. J. Elliot Clarke, Mrs. J. S. Copley Greene, Miss Tower, Miss Kimball, Mrs. G. O. Shattuck, Mrs. Kennard, Miss Parkman, Mrs. Homans, Mrs. Gorham, Anonymous, Mrs. S. D. Warren, Mrs. Shepard Brooks, Mrs. P. C. Brooks, Jr., Mrs. Clara E. C. Waters, Mrs. Upham, Mrs. John C. Phillips and others.

The \$8,000 was raised and turned over to President Walker, \$4,500 at one time and \$3,500 at another, for each of which amounts Mrs. Richards received his receipt and the Corporation "gratefully acknowledged the tender of the various subscriptions."

"As a result, the Walker Building was erected with its Kidder Laboratories and a large and convenient rest room with laboratory and coatroom, was provided for the women students. The building was completed about 1884.

Also through the interest of the Women's Education Association, furniture, books, china pictures, apparatus and gifts of money for special purposes poured in for this rest room."

Miss Minns again writes: "This room received almost at once the name of the 'Margaret Cheney Room' or the 'Margaret Cheney Reading Room,' in memory of one who died almost at the point of graduation and who would have been the first to take the degree.

"For seven years I knew Margaret Cheney intimately in the Women's Laboratory at Technology, in Professor Goodale's classes at the Gray Herbarium, in Miss Anna Eliot Ticknor's 'Studies at Home Society,' and in her own home and in mine. In 1876 she came and studied at Technology, but went to California in the spring and also went to Europe for a time, and did not study continuously. When the Institute decided to open its doors to women, Margaret Cheney resolved to graduate and take her degree. With Mrs. Richards she had done some beautiful work on the determination of nickel, so good that it had been published in the *N. A. Journal of Chemistry*, from which it had been taken and published in a German chemical magazine. One of her last pieces of work, it may have been intended for a part of her thesis, was the extraction and determination of caffeine from the coffee berry. This was done entirely by herself.

"Of good old New England stock and of great personal beauty, Margaret Cheney was one of those fortunate natures who are free from the illusion of self. Her genuine piety and humility preserved her from all thoughts of herself and gave her a serenity and composure of the finest good breeding. Her keen powers of observation, her well stored mind, and her sweet, unselfish temper, made her a delightful companion, constantly sought. Her earnest thorough love of study had made her rejoice in this higher education which the Women's Education Association had brought to her. As she learned, she taught others. Wherever she went she formed classes of boys and girls studying nature with her and devoted to her. She taught them how to collect and how to care for their collections. Her work bench, her tools, her microscope were all

kept in the most perfect order, and her hands, in their skilful manipulation, were wonderful.

Prof. M. D. Ross, who had known her from a child, was the one to propose the room should bear her name. There was no thought of dissent, such was the affection in which she was held. There was no one then, nor has there been any one since for whom the room would have been named, as it was for Margaret Cheney. It was a thing decided instantly with the full consent of all."

The Cheney family thought it was "an excellent idea to name the room for Margeret" and contributed five hundred dollars towards the room.

Besides the gift of five hundred dollars from the Cheney family, towards furnishings, Mrs. Ednah Cheney gave furniture in addition, and other gifts were received from the following persons: Miss Bates, Miss Florence Cushing, Miss Susan Minns, Miss Parsons, Mrs. Ellen H. Richards, Mrs. Williams.

The Institute gave an oak bookcase and later on some of the women students were also contributors.

The original room was in use until 1898, when owing to the expansion of the Institute and the rearrangement of the departments in the Walker Building, the Margaret Cheney Reading Room was assigned new quarters in the new Pierce Building, Trinity Place.

This second Margaret Cheney Reading Room for women students was situated upon the first floor of the Pierce Building, with an outlook upon Trinity Place. It was commodious and had in connection with it, suitable dressing-rooms and a kitchenette, again affording the women students the opportunity to prepare light lunches for themselves. Not only plenty of dishes but many other articles needed in cooking were among the gifts to each room.

This room served both for studious and social gatherings, for not only did the women students enjoy their room, but the Technology Matrons and Technology Women's Association met socially there as well. The furnishings of this second Margaret Cheney Room consisted largely of those in the original room that was in the Walker Building. The Institute gave oak settees and former women students contributed one hundred and sixty-five dollars for additional furnishings. Among those contributors of either money or articles for this room, were the following: Mrs. Sarah Bonesteele, Miss Charlotte Bragg, Miss Dixie Lee Bryant, Mrs. Alice G. Carr, Mrs. Ednah D. Cheney, Professor Crafts, Miss Louise Day, Mrs. Stanley McCormick, Mrs. Florence W. Erving, Miss Mabel Forrest, Miss Anna Gallup, Mrs. Mary L. Holman, Mrs. Darragh de Lancey, Miss Marian Mahoney, Miss Elizabeth Mason, Miss Matthews, Miss Amy B. Maynard, Miss Susan Minns, Miss Orvis, Miss L. J. Parsons, Miss Lucia M. Peabody, Miss Clara Pike, Mrs. Ethel B. Robinson, Mrs. William B. Rogers, Mrs. Charles W. Sawyer, Mrs. Jennie A. Sheldon, Miss Delia Stickney, Miss Esther Stone, Miss Mary Thompson, Mrs. Grace Van E. Stoughton, Miss Laura B. White.

Mrs. Cheney's interest in the room had continued active from the first and when she died, not many years after the removal to the Pierce Building, the room was not forgotten in her will.

In the report of the President of the Institute, for the year ending September 30, 1905, we find the following:

"From the estate of Mrs. Ednah Dow Cheney, \$13,741.66 as a fund for the benefit of the Margaret Cheney Reading Room. With this legacy came a portrait of Miss Margaret S. Cheney. Those who know Miss Cheney, testify to the excellence of the likeness and it is most appropriate that this work of art should adorn the room, which is itself a memorial to her."

For some time the interest from the fund was more than sufficient to care for the room, and the accumulated interest was added to the principal, but of late years it has been depleted.

When in 1916 the Institute moved to its present site in Cambridge, the present Margaret Cheney Reading Room for women students came into existence and was ready for occupancy in the fall of that year. It is on the third floor of the Administration Building, facing the great court, the Eastman, with a view across to the ever changing Charles River and its restful esplanades.

For this room, entirely new furnishings were deemed advisable, and Miss Manning, member of a Technology Women's Association committee, consisting of Miss Babcock, *ex officio*, Miss Minns and Miss Manning, reported that nine hundred and ninety-one dollars was the amount needed for the furnishings desired.

Miss Babcock, at that time President of the Technology Women's Association, reported at the same meeting of this committee, that the Corporation of the Institute voted five hundred dollars from the accumulated income of the Ednah Dow Cheney fund for the Margaret Cheney Room, on condition that the Women's Association should provide the balance.

This was done. Of the balance, one hundred dollars was voted from the treasury of the Technology Women's Association and the rest was given by the following Association members: Miss Annie E. Allen, Miss Mabel K. Babcock, Miss Margaret E. Maltby, Miss Sarah E. Day, Mrs. Frederick T. Lord, Mrs. Stanley McCormick.

The present room is somewhat smaller than the last, but is far more attractive and has a larger and more convenient kitchenette.

APPENDIX

Upon the removal of the Institute to Cambridge, there arose a new condition affecting the women students who study architecture, owing to the fact that the Corporation decided to establish the Architectural Department in the Rogers' Building, the first of Technology's group in Boston and one that it still retains. This means that to these women students, full enjoyment of the present Margaret Cheney Room is not possible, owing to the distance between the buildings. To meet this situation, the executives of the Architectural Department, have placed

at the disposal of these students, a comfortable room upon the second floor of the Rogers' Building, and over the main entrance.

The furnishings of the Margaret Cheney Room in Pierce Building, which were not needed in the Cambridge Room, fitted in very well in the Rogers' Rest Room. Although the architectural women have not a kitchenette and matron as in Cambridge, they have conveniences for preparing light lunches.

The undergraduate women's society "The Cleofan" affords the opportunity for all the women students to come together at its meetings and teas held in the Cambridge room, an opportunity of which they avail themselves as often as possible.

FIRST TO GIVE TEXTILE COURSE AT M. I. T.

Technology Instructor a generation ago

JOHN W. SMITH, a chemist, who died last June at his home, 7 Brookfield Street, Roslindale, after an illness of a year, was born in Leeds, England, seventy-two years ago and was educated in London. In 1871 he competed against sixteen thousand students in chemistry and won the National Gold Medal of Great Britain offered by the late Queen Victoria.

Mr. Smith came to America in 1883 and in 1888 he became connected with the Institute and later founded there a course in textile chemistry and dyeing. He resigned from the Institute in 1902 and since that time had been connected with chemical and dyestuff industries in Boston.



CHING YU WEN, III, '08,
Of Peking, China

IMPRESSIONS OF CHINA

BY PAUL M. WISWALL, V, '09.

I SUPPOSE everybody pictures to himself places he has never seen. Long before I had ever been in Boston or New York, I had very distinct notions about how these places would look, for they were American cities and every day there were news items about them in the papers. On the other hand, in the case of foreign lands, there were only the haziest images. The island of Java, for example, was never anything but a purple spot on the map, something like a closed jack-knife in outline and about one inch long by one-quarter inch wide.

As to China, the only mental picture I remember was a circular brown plain with tall trees like poplars here and there about the edge. That is one reason, perhaps, why my very first glimpse of China was such a surprise. After several months in the tropical islands off the Asia coast, I was approaching Hong Kong from Manila. We had come aboard the ship at Manila in the thinnest of summer clothing. The day before we arrived off Hong Kong, a slight chill in the air had driven us to our steamer trunks for woolen clothing. During the latter part of the night, we had felt our way through the fog, to the cheerful note of the whistle. I was reminded of a trip up to Boston from Norfolk a few years ago, when after a beautiful summer day we ran into a chilly fog off Martha's Vineyard and lay for several hours in Vineyard Sound at anchor. There was the din of whistles and bells and the same delicious salty tang in the air as on the New England coast. When the fog lifted, about eight in the morning, I found that my notions about the brown bare plains of China were not in the least founded on fact. There was nothing brown or flat in what I saw. In fact, the entrance to Hong Kong harbor is one of the finest in the world. I cannot vouch for Rio and its famous Sugar Loaf Mountain. But Naples and our own Golden Gate must look to their laurels when Hong Kong is mentioned. High rugged hills, covered with green — some of it evergreen — rise sheer from the water. Lake George is on the same order. The ship threads miles of narrow channel. Villages along the shore are very few. The waterway, however, is crowded with ships from every port under the sun. If you were to judge by the light-houses perched in the niches of the cliffs and the modern steamers you pass in the channel, you might think you were entering an American harbor. But the local color is supplied by the hundreds of Chinese junks which are loaded with everything that is handled in one of the biggest ports in the Orient and which also is the most eastern outpost of the British Empire. These junks with their dingy patched sails of matting or canvas and their unpainted hulls of mellow brown wood remind you of the designs on old china.

Hong Kong is not really the city but the island on which the city of Victoria is built. Hong Kong Island is the crowning glory of all the surrounding country. It is a mountain peak sticking up out of the sea. Along the shore is built the city proper, much of it on made land because the sides of the peak-like island are so steep. The summit or Peak, as every one calls it, is a park-like residential section where the wealthy Englishmen live. The view from the Peak is splendid. On one side you look straight down upon the harbor nearly two thousand feet below. The steamers moored to the harbor buoys in orderly rows look like tiny boats in a Christmas tree game. Everywhere there are more peaks with now and then glimpses of water between. If you could put yourself on the summit of Storm King near West Point on the Hudson and then broaden the river into a bay and fill the bay with other Storm Kings and Anthony's Noses, you would get some idea of the fine setting of the city.

The skipper of a British coasting steamer told me something that was said to have taken place when the British were fortifying the heights around Hong Kong. The Chinese, I may tell you, are very able craftsmen. They can do anything with tools, either Chinese or Occidental tools, if once they are properly instructed. Sometimes they have their own methods, but if they understand what you want and you will let them alone, they are pretty sure to finish what they set out to do. It happened that on one of the steep rocky islets the British naval engineers had planned to locate a battery. They knew that it would be a hard task to get the guns up the sheer hillside and for that reason had built a zigzag concrete roadway clear to the top. In the concrete they had even set eyebolts to which to fasten the tackle when the guns were ready to move. In due season the guns came out from England and were started up the roadway. But unfortunately there had been some miscalculation, for at the very first turn, the first gun stuck fast; it could not make the bend. No amount of coaxing brought results. One day an ordinary-looking Chinaman came up to the perplexed engineers.

"You want to get big gun topside?"

"That is just what we do want to do!"

"Can do," said the Chinaman in his best pidgin English.

So, as the story goes, some days later a swarm of coolies descended on the gun. They trussed it up with miles of rope the size of your finger. Then they ranged themselves at the edge of this spider's web of rope. The wise old Chinaman grunted and all the coolies began to pull. The gun moved; and that was how all the guns were placed.

I was on my way to Canton when I heard this story. One of the reasons why I wanted to visit Canton was to find Tse, III, '08, and see how he looked on his native heath. You who recall Tse will remember a short stocky man as full of western pep as he could stick. Now and then in his freshman days up at the top of those interminable stairs in Rogers, in the drawing room, he would take time to write his name in Chinese characters and I for one used to look on in admiration and astonishment, but the thing that put Tse on the map for me for all time was getting

his Master's degree in 1909. I was in the anxious queue of seniors in the lobby of Rogers awaiting my fate. Since alphabetically, if in no other way, I was near the foot of the Class, I had the pleasure of waiting and waiting while most of my classmates filed through the Dean's office and back out into the checker-floored lobby. Tse was the only man whose appearance I remember as he emerged from the Chamber of Horrors. He had known that he was on the ragged edge, but the Faculty must have relented at the last moment, for his notice was favorable and he burst out dancing and yelling like a wild man. Seeing the Chinese at home confirmed my feeling that they are rather stoical, but I can cite you one Chinaman who on one occasion did not run true to form.

Had it not been for Tse, I would have seen little of Canton. The city is a maze of tiny narrow paved alleys crossing and criss-crossing each other. Some of the busiest streets are not much over six feet wide and in a city of over a million, traffic is not much different from a Technique rush. To be sure there are no wagons nor animals. The streets are too badly paved for wheeled vehicles and there is no room for beasts of burden, even if there were any. You must remember that the principal burden-carrier in all of China is not the motor truck or the wagon or even the back of a mule; it is the hard-working Chinese coolie himself. The back of a man, oftentimes the back of a woman, is the main means of transportation in China. In all this seething turmoil of traffic which assailed the ear with shouts in the throaty clucks and gurgles of the Cantonese dialect and the nose with smells of unwashed bodies and of strange cooking odors that cannot be uttered, I found the guide that Tse gave me most welcome.

Canton until now was surrounded by a huge wall, but this has just been taken down and on the wide scar modern paved streets have been built. There is also a fine wide street along the waterfront. Along this Bund are the thousands of boats occupied by the truly floating population of the city. I think Tse told me there were fifty thousand people living afloat and some of them rarely set foot on land. The lady of the "house" might step ashore and go marketing, to be sure. But even that was unnecessary, for if she stayed at home on her own quarterdeck, the butcher and the baker and the water seller would all come rowing up at some time during the day to supply her wants.

Tse is connected with the central power station of the city. In all the large cities of the Orient, central power for lights and motors is more common than supplies of good drinking water. In Canton, under Tse's direction, a modern turbo-generator plant was being built. The old station was an ancient affair, the most interesting feature of which was the prime-movers. They were Diesel type engines. That throws a sidelight on the fuel supply of the Asia coast. Coal comes for the most part from Japan and from a large property in the northern part of China. Even Indian coal is handled at some ports. But there are well developed oil properties in Borneo. In fact, I crossed the Pacific on an oil burner which spent a day fueling at Balik Pappan, a town almost under the Equator on the east coast of Borneo. At this place one of the Royal

Dutch subsidiaries has as up-to-date an oil town as can be found, for example, on San Francisco Bay. They even cap the climax by operating a motor-driven tramcar along the main street and every one is free to ride as much as he pleases. Pipe lines lead down over the hills from the back country and most of the petroleum products we are familiar with are made there. That means that low-grade distillate is produced in considerable quantities and this is available for fuel purposes. There were in Balik Pappan during the thirty-six hours our ship was in port at least five arrivals. All had come for oil either as fuel or as cargo. This oil is distributed at ports in the Far East and used for fuel as in the powerhouse with which Tse was connected. Even in Ceylon I understand that much of the tea is prepared in factories where liquid fuel is used.

In travelling north from Hong Kong to Shanghai it is possible to go by water only; there is as yet no rail connection between the two cities. Shanghai is well called the New York of China and Hong Kong, just below the Tropic of Cancer, might be likened to its New Orleans. It is about seven hundred miles between the two cities. The fact that these two most important ports on the China coast are not connected by rail and that they are three days apart by water throws some light on the transportation problem of the nation. To an American it is almost incredible to find such inadequate means of getting from place to place. Roughly this country and China are of the same size. We have about two hundred and fifty thousand miles of railroad; China has about seven thousand. If our roads were on the scale of China's we would have two main lines, one running from New York to St. Louis via Chicago and the other from New York to New Orleans. If you wanted to send a case of goods from New York to Denver by the Chinese method, you would make shipment to St. Louis by rail, up the Missouri by steamer and then by horseback over the hills to Denver. But the lack of rail connections is not all the shortcomings of the transportation facilities. There are no wagon roads worthy of the name. Most of the roads are just two ruts in the mud. The wagons are heavy wooden springless affairs with narrow tires and nail-studded wheel rims. A more unsuitable vehicle for the roads during wet weather could not have been devised. An empty wagon is a load for a horse or donkey when the roads are muddy. In the rough country, goods are carried only on the backs of animals or men. This condition explains why the people of Shantung and particularly of the remote provinces could not be fed during the recent months of famine; there was no way of moving supplies of food when the local stores were exhausted.

The influence of the West, however, can be seen in many places. In Shanghai, for instance, I visited a cotton mill as a guest of the managing director, a charming Chinese gentleman who had been a student in two American universities. I was first entertained at lunch — tiffin they call it in the Orient — in a beautifully furnished room in his office and regaled, I might add, on ancient eggs and sharks' fins. The mill itself was the last word in American design and equipment. The

building was ferro-concrete; all the looms and other cotton machinery were of New England make; there was G-E electric drive on all the machines. If, in your mind's eye, you could replace the Chinese operatives with the type of mill hands you see in Fall River or Lowell or New Bedford, the mill might as well have been in any of the latter cities.

I did not see Shantung in distress. It was the harvest following my visit to China that by its failure brought the acute suffering that some parts of China have been feeling. Besides, it was winter when I crossed Shantung. At that season of the year the wide sweep of brown alluvial plain looked as rich as our prairies. There are no large farms in China as we have here in America. Not only are the farms small, but almost every square foot of soil in Shantung is under cultivation; there are no wooded tracts and no waste land to be seen from the car windows. The only exception to the land under cultivation is the plots used for cemeteries. No matter where you look you see graves marked by groups of conical mounds of earth. Often trees are planted at the edge of the cemeteries. In the dull chilly February afternoon with snow in the air, the flat brown country with the many graveyards was a bit depressing. Since that dreary day, there have been many new graves and many new mounds.

The Chinese have the deepest respect for their ancestors. Pilgrimages are made to the graves and the disturbing of these cemeteries is a serious matter. Apparently the burial plots are never abandoned. In these days when the country is overcrowded and every bit of agricultural resources must be conserved, the living seem scarcely to get the consideration given to the dead.

Peking is the most fascinating place that I visited in China; no other city can begin to compare with it. The city shows the influence of the northern peoples who overran China, for of the Chinese cities that I saw, it is the only one that has been laid out in regular form. Most Chinese cities have grown and spread without a definite scheme. Peking, on the other hand, is definitely rectangular in form, with a crosswise wall that divides the Chinese city from the Tartar city. The streets are laid out, not perhaps in such perfect squares as Philadelphia but with a good deal of regularity, nevertheless. Outside the Legation Quarter, there is scarcely a western-type building; everything is Chinese and very largely of one story. The streets swarm with rickshaws and carts; with donkeys and camels. There are electric lights, mostly incandescents, on the streets but no adequate and safe water supply.

I cannot begin to give the faintest idea of the charm of the city. As you ride in your rickshaw along the narrow, walled-in streets, you get fleeting glimpses into the court yards of the homes. Now and then you come to inner walls of the city, perhaps to the walls of the Forbidden City itself where until about eleven years ago the Emperor lived and into which no foreigner entered. Now the gates are open and every one may enter and admire the treasures that were saved from the looters during the Boxer trouble. The walls of the Forbidden City are done in regal red and topped by copings of yellow tiles. The former buildings of

state and the temples are also red with yellow roofs. About many of the buildings there are moats with bridges and all the bridges are overlaid with carved white marble. You may rest assured, however, that there is more to see than the moats and bridges and the outside of the buildings. I have always been rather keen for the carved jade in the Metropolitan in New York, not alone for the beautiful designs but because of the prodigious labor required in working it. I confess, however, that I was entirely unprepared for what I was to see in the Forbidden City. There were bronzes, rich embroidery, lacquer work, ivory and jade, to mention just a few of the beautiful things that had been wrought by the Chinese craftsmen. It is no wonder that while the educated Chinese deplores what has happened in his country because of lack of national unity and as a result of foreign aggression, he still can point with pride to the things that his nation has done in the realm of art.

There is indeed no lack of trouble for the leaders of the Republic in these latter days. The President of China is a weak man; he does not inspire confidence among the educated and patriotic Chinese and he is even sometimes accused of playing into the hands of the Japanese. Besides that, he is the nominal head of a huge nation that has no strong national feeling, for there never can be a well grounded patriotism in a country that is not bound together by ties of language and communication. Do you think that California would be the Golden State in the Union if half the trip to Washington had to be made on horseback over poor roads? If the people of Ohio spoke a dialect that the people of Louisiana could not understand we might have a Union in name but not in truth. These comparisons are not far-fetched. They may, however, explain why there is so much said about the setting up of a South China government in the influential city of Canton.

Another thing that an outsider is sure to notice is the lack of interest in the keeping of the temples. I remember one temple in Nanking where the grass was growing between the flagstones in the courtyard and where there was dirt and dust in the temple itself. Many temples were bare and showed few signs of use. A thorough-going devotion to some religious theme would give the whole nation a bond in common which it now seems to lack.

From Peking I went out to see the Great Wall. It happened to be the Chinese New Year's Day and all the night before firecrackers had been exploding and shouting crowds of holiday makers had been parading the snowy streets. The Chinese, you see, have a lunar year and New Year's came on February 20. New Year's, by the way, is the only time in the whole year when the Chinese in general have a holiday. Shops in China are like the laundrymen's shops here; they are rarely if ever closed.

I wakened New Year's morning to find a gray sky and occasional flurries of snow. It took an early start in the dull chilly dawn and an hour's rickshaw ride to reach the station at the far corner of the city. For two hours the train ran toward the bare white hills north of the city and then began to climb the stiff grades on the way to Kalgan, the

farthest outpost of rail communication in the direction of Urga the capital city of Mongolia. This railroad, by the way, is said to be the only one in China built by the Chinese themselves; all the main trunk lines are foreign surveyed, foreign built and foreign operated. It happens that on the line to Kalgan most of the Chinese engineers are American trained and much of the equipment is American made. The huge Mallet engine that brought the train up to the Wall at a switchback station called Ching-lung-chao was made in this country; it seemed indeed out of place as it woke the echoes among those ancient snowclad hills from the crests of which the Great Wall had been looking down for centuries.

In fact, the whole of history seemed to be turned back as I climbed up from the railroad cut to the summit of the jagged ridges and clambered onto the Wall itself. It was a prodigious job to build the Wall for one thousand five hundred miles along the top of the range that nature had provided as a buffer between the Chinese and the rough barbarians in the North. The Wall was begun about two thousand two hundred years ago and much of it is thought to have been built in sixty years. It was a tremendous undertaking well done, even if you know that repairs have been continued up to the present. All the stone and brick and mortar had to be brought up from the valleys to the most inaccessible heights, since only at such places could the Wall be strategically located and the defenders hurl rocks and shoot arrows down upon the heads of the advancing enemies. Then there were streams that had to be crossed and gateways in the Wall that had to be guarded. When you consider that the Wall is fifteen to twenty feet high and at least twelve feet wide at the top, you will get some idea of the mass of material required in building it.

One particularly interesting thing about the Wall is that there is nothing to show that any attempt was made to do grading for the footings; the foundations were put in just as the land happened to lie. The result is a structure that follows every up and down of the country. As you stand on a crest of the Wall, you see it leaping over the ridges and diving down into the hollows beyond, clear to the farthest heights. This following of every ridge and hollow gives the Wall a most unusual appearance because we are accustomed to seeing railroads and even highways constructed with the high spots cut down to fill the hollows. It is as if when the Wall was built, the whole mass — brick, stone and mortar — was put into a huge collapsible tube and then squeezed out onto the hills in a semi-fluid mass. Toothpaste does not follow the surface of your toothbrush more closely than the Wall conforms to the irregularities of the northern China hillsides.

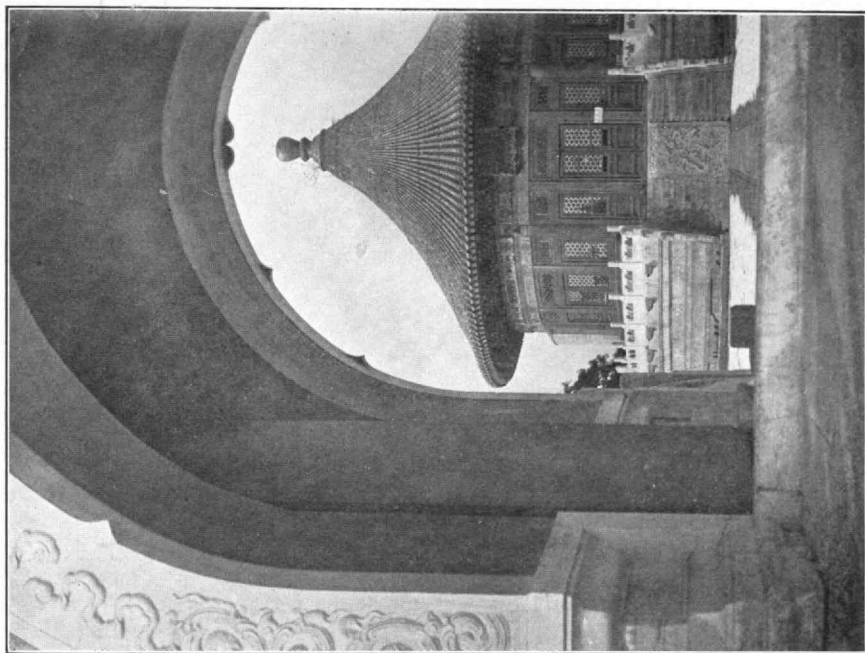
While I was standing on the Wall near a portal where one of the old caravan routes to Kalgan passes through, I heard the tinkling of bells and saw a long train of small donkeys come winding up from the valley below. They were in charge of a great strapping fellow over six feet tall and powerfully built. He was dressed in coat and trousers of sheepskin with the wool turned inside. On his head was a tight round skull-cap of rough brown stuff spun undoubtedly from camel's hair. His face

was as round as the full moon and just the color of a newly polished copper teakettle. Seeing some one at the gate in the Wall, he broke into a wide, brainless, Cheshire-cat grin. His donkeys were laden with cattle manure, each animal having a bushel basketful on either side of a rough packsaddle. The grinning farmer might have been taking this pitifully small amount of fertilizing material to his tiny farm twenty miles away over the snowy hills. If the calendar had been set back to the year twenty-one instead of nineteen hundred and twenty-one, that little caravan would have fitted into its surroundings better than in these days of steam and electric power.

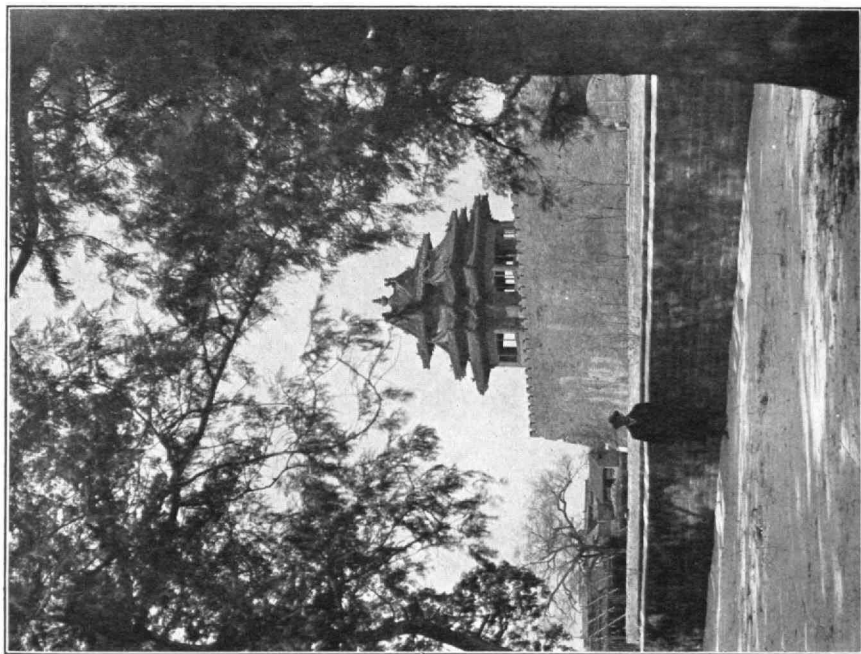
I am going to conclude this ramble in China with an account of my meeting Wen, III, '08, at his home in Peking. Every one who groped about in the murky depths of Bill Hall's spathic iron ore laboratory in the winter of '07 and '08 will recall Wen. He went from the Institute to Columbia, where he took his Doctor's degree. Since his return to China he has been in the Government University in Peking. My rickshaw man found the University, but Wen was not there. In fact, things were at sixes and sevens at the University because the students were on strike. These bright young fellows, who are the hope of China, were so disgusted at the way the powers-that-be in Peking were playing into the hands of the unscrupulous element in the Government that they refused to attend classes until things were settled to their liking. This incident shows the interest the educated young men of China are taking in politics. I suppose it is as if the undergraduates at the Institute went on strike because Congress did not ratify the League.

Wen, they told me, was not at the University, but I might find him at home: I asked for his address and had it written down in Chinese characters for the benefit of my rickshaw man. He set me down at the gate to the "compound" or courtyard of the typical Peking residence. A gray plastered brick wall, pierced by similar gateways ran monotonously down both sides of the street. Nothing of the houses could be seen. I beat on the door and had it opened by the porter to whom I gave my card. After a moment he came back and beckoned me inside. There was Wen, sure enough. He was wearing the long silk coat and little round satin skull cap of the Chinese business and professional man. He looked just as when I had seen him last, about ten years before. As for me, I was a thunderbolt out of a clear sky. A letter that I had sent ahead some days before had not been delivered. When he discovered who I was, he welcomed me with open arms. As we drank tea together in his parlor, he told me what had happened to him since he left Boston. The next day, Wen had tiffin with me and later he took me to some of the interesting places in the city. He pointed out, among other things, the garden where he and other Tech men in Peking had entertained Arlo Bates of blessed memory when Professor Bates visited China about 1916. Wen saw Professor Bates by chance on the street, made himself known and later arranged a party which all the Tech men in Peking attended.

Before I left town, Wen arranged a tiffin for me; it proved to be one



THE TEMPLE OF HEAVEN, PEKING



ANOTHER GLIMPSE OF PEKING

of the most enjoyable occasions of my long trip. Even then — and you might expect it of Wen — he apologized for the entertainment by telling me that the most attractive restaurants were closed because of the New Year's holidays. At any rate one noontime I was set down by my rickshaw coolie at a rather unpretentious shop door and given to understand that that was the address that I wanted. I pushed through the heavy portiere that served for a door and found myself in the kitchen of a restaurant. There were pots and brick stoves and dressed poultry, rice and cuts of pork in the foreground. At tables at the back of the room, coolies were eating their rice. I was not over impressed at the prospect. But two or three well dressed Chinamen came forward smiling and when I mentioned Wen's name, they turned me over to a porter who led me through a maze of passages, across a tiny court and into a most attractive dining room. There I found Wen and three other Chinamen — two of them recent Institute graduates — whom Wen had arranged to have me meet. Perhaps I ought to explain that passing through the kitchen to get into the dining-room of the restaurant is just another instance — like using white for mourning or standing up and facing forward in rowing a boat — of the difference between our way of doing things and the Chinese way.

We spent the time until the meal was served in drinking delicious tea and nibbling peanuts and watermelon seeds. I can assure you that nibbling watermelon seeds is the ideal time-killer before banquets, for they give you something to do without spoiling your appetite in the least. The tiffin itself revolved about genuine Peking duck served a la Chinoise. You will understand the truth of the latter qualification when I tell you much incentive to the waiter from Wen and the rest of the party and a long search behind the scenes failed to produce any western eating utensils in my honor except a badly broken-down knife and fork. On the other hand, I had had one or two "goes" with chopsticks and I had made up my mind that since it was quite the thing when in Rome to do as the Romans do, I would see that tiffin through with chopsticks alone, no matter how badly I might muddle things; I thought I might as well be killed for a sheep as a lamb. Moreover, I had seen the fat little toddlers on the boats in Canton handling chopsticks with all the dexterity of their elders and I had said to myself, "Pooh! There is nothing to it. Any one can eat with chopsticks." Which is all quite true if you can keep the two sticks in line; but once you get them skewed around like the beak of a cross-billed chicken, it is another matter. You might as well try to pick up dry beans on a lead pencil.

I have said that the tiffin revolved about Peking duck. This particular meal consisted almost entirely of duck served in appetizing and diverse ways. The very first course consisted of a stew made from the web of the creature's feet. That course almost proved to be my Waterloo. For the bits of web were as slippery as gravy could make them and the more effort I spent in trying to get a good hold with my chopsticks, the more difficulty I had in keeping them in line. I might as well have tried eating soft-boiled egg with a knitting needle. But I got along

better with the other courses. I could eat the boiled rice that takes the place of both bread and potatoes and the different cuts from the thighs and breast of the duck were easily managed. In fact, I might whisper to you who read this and who like roast duck that if you want such duck as you never dreamed of, go to Peking, hunt up Wen and get him to take you to the place where he took me.

But that is not all the story of that tiffin. After several courses, the waiter appeared with something on a small platter. When he came into the room, there seemed to be a lull in the conversation. Wen told me that the guest was always served with the most toothsome tidbit of the bird and this the waiter was now bringing in for me. There was set down before me the roasted head of the duck split down lengthwise and opened up like an oyster on the half-shell! I had eaten that duck's feet and I was willing if need be to devour the poor creature's brain. But just at that moment I was interested in a delicious morsel from the breast of the bird and I felt that it might be unwise to give up the known for the unknown; and while I was sticking to the known, the two young men of the party spirited off the bird's head. That seemed to satisfy every one; I for one made no effort to interfere with their little plan.

One final word. No one can go to China and see the people and the things they have done without feeling a deep respect for the country and for its heritage from the past. It even seems sometimes that China is still living in the past. But everywhere you see the nation reaching out to take advantage of the things that the nations of the West are offering her. In no respect can the West help China more than in spreading the gospel of technical training particularly along the lines fostered at the Institute; and in medicine.

The influence of the Institute is now making itself felt in China through the activities of American graduates who have gone out as professors in the schools and as business men connected with American enterprises there. It is making itself felt also through the many Chinamen who have attended the Institute and who are now back in their native land. These men are effective missionaries of western methods in a land where their training is sorely needed. There are listed in the Institute's catalogue from year to year increasing numbers of Chinese students. In no more effective way may the progressive spirit of this nation of ours be passed on to the conservative, age-old country from which these bright young men come. May their numbers grow with each succeeding year!

THE ANNUAL ALUMNI DINNER

THE Annual Dinner of the Alumni Association will be held in the Walker Memorial on Saturday evening, January 7, 1922.

PARTRIDGE, '96, INVENTOR, SCIENTIST, CLERGYMAN

BY JOHN E. PEMBER, IN *The Boston Herald*

"T. E." THEOLOGICAL ENGINEER.

That will be the title appended to the name of the Rev. Welles Morton Partridge, Technology, '96, and rector of Grace Episcopal Church, South Boston, when it comes to be written in the hall of fame, along with those of Fulton and Ericson and Morse. For Mr. Partridge is an inventor and scientist as well as a minister. He knows as much about strains and stresses, of co-sines and tangents as he does about the Thirty-Nine Articles of Religion or the most effective methods of settlement work. He has invented and perfected a man-lifting kite which is a unique contribution to aeronautical science and which, but for the signing of the armistice which so abruptly halted all war activities, would undoubtedly have been adopted as a part of the regular equipment of the United States Navy.

Only one of Mr. Partridge's kites was built to full scale and there never has been an opportunity of flying this, although many models have been successfully sent aloft, due to the cessation of active warfare. But this kite, stored in the aerodrome at the Massachusetts Institute of Technology, is a most remarkable and interesting machine and presents visible and tangible evidences of the progress which the clergyman-inventor has made.

Naturally a man of peace because of his calling, the inventor felt, nevertheless, as a red-blooded American citizen, that every man should do his part to bring the war to as rapid and successful a conclusion as possible and felt that his call of duty lay in the line of developing some means of saving the lives of our men by directly combating the submarine menace.

As is always true in bringing a new idea to the fore, particularly to the attention of the Government in time of war, the inventor underwent an almost innumerable multitude of discouraging and harassing experiences before finally getting official recognition and having the Government construct his machine at its own expense. He was shown filing cabinets in New York where the Government had over forty thousand inventions against the submarine! Realizing from his previous connection with the navy that the submarine is practically invisible to its prey, as it shows but a few inches of its periscope above water, but that it can be easily "spotted" if one is sufficiently elevated above the sea, he felt that the great need of the navy was some auxiliary to the kite balloon and airplane which could be used to elevate an observer from smaller vessels, particularly the scouting type, such as destroyers, which are low in the water and cannot even get a man as high as a battleship's masts, and which, from their size, are unable to

use either of these means of aerial elevation. After long and careful thought, he decided that a man-lifting kite was the only means that could be employed, provided that one could be constructed so that it could be stored in a small space on shipboard and quickly raised when need of observation demanded it, and which could withstand shell fire because of open and cellular construction.

The Rev. Mr. Partridge spent over two years of actual work developing such a kite under government supervision, and although he was offered a commission as major in the army, and also could have gone as a Red Cross chaplain to France, felt it his duty, in spite of many actual hardships and personal privations, to unostentatiously, under government secrecy, work out this idea, which had the backing of a large number of leading scientific men with whom he consulted. The result was that finally the navy department ordered the construction of a fleet of six of these kites, framed in steel and aluminum.

One of the outstanding features of the Rev. Mr. Partridge's kite — "the Partridge collapsible hydro-kite" is what the Government calls it — is that it rests upon horizontal sea-skids, or pontoons, which can be inflated like automobile tires and which will sustain the machine when it comes down upon the water. Supported by these skids, it floats like a gigantic sled, and is ready to rise from that position either by the force of a natural wind or the artificial breeze created by a towing vessel when it gets under way. The kite, which is probably the largest ever made, is collapsible, and, by means of an ingenious and simple arrangement, folds down into a space of only ten inches in thickness from seven and one-half feet in height.

"The object of this machine of mine," said the Rev. Mr. Partridge to a *Sunday Herald* reporter, "is to elevate an observer above the surface of the water in order to locate enemy submarines from naval and merchant vessels. It can also be used for night and day signalling. It is based on the now well-known principle that when one is raised to the proper distance above the sea two things take place. First, the water turns dark from lack of reflection, thus enabling the observer immediately to see the long, white wake of the submarine's periscope; and, second, to see through the water for a considerable depth, varying with the roughness of the sea and the transparency of the water. Under favorable conditions, it is possible to detect a submarine at a considerable distance beneath the surface. The only two means that our Government now has of elevating an observer at sea in order to locate a submarine or give warning of the approach of a torpedo are by use of a hydroplane or a captive kite balloon. But, unfortunately, neither of these can be raised from any vessel smaller than a cruiser, so that our auxiliary craft, destroyers, submarine chasers and the like, not to speak of merchant vessels, have no means whatever of putting a man aloft higher than the mast. Although the 'sausage' or kite balloon has been thoroughly tested out by the navy, many officers have reported adversely on it. This type of balloon cannot be used with practical safety in any wind over forty to fifty miles an hour because it is of such bulk

that in a high wind it blows toward the surface of the water when made fast to a vessel and swings the observers about with great violence. Furthermore, when stored aboard ship with its scores of gas tanks required it takes up an enormous amount of valuable space. The hydroplane is limited in its use as it cannot fly from any naval vessel smaller than a cruiser and it has to travel at such enormous speed aloft that the observer, of course, does not get as accurate an observation as he would were he traveling at a much lower velocity. This machine of mine, unlike the airplane, flies by action of the wind against its planes and not by power operated within itself by some form of engine — it is therefore a 'kite.' The points which I wish to emphasize are that it can be used on smaller vessels; that it is collapsible and can be stored away in a small space on such small vessels; also that in going against the wind this machine can fly at all speeds from zero up to the speed of the vessel and so does not have to travel at the tremendous speed of the airplane. This enables the observer to make more accurate observations. Again, the observer does not have to depend on wireless for communication, but can telephone to the vessel directly through the connecting cable. If there is no wind blowing to raise this machine at sea it is simply dropped overboard and rests upon the surface of the water by means of its inflated skids. The line is paid out for several hundred feet and the speed of the vessel is then increased till enough wind is generated by the machine's velocity in the water to raise it."

Rev. Mr. Partridge says that his experiments with large flying wooden models have shown him that his machine can be flown in a wind of almost any velocity. If it blows too hard the machine is so designed that it simply "kicks up its tail" and lets the gusts blow between the planes instead of against them.

It is almost impossible to imagine a gale of sufficient violence to bring it down or separate it from its table.

When in use it is the intention to have several of these kites flying "in multiple" at different heights and all attached to a ring from which the "bosun's" chair or basket holding the observer is suspended, and to which the main cable is fastened from a lower winch.

The Rev. Mr. Partridge, who confesses to forty-nine years, was born in Brooklyn, N. Y. He is a brother of Bishop S. C. Partridge, formerly of China, later bishop of Kyoto, Japan, and now bishop of western Missouri; Dr. C. C. Partridge of Boston and of William Ordway Partridge, the sculptor, of New York. Like all boys he was devoted to kite-flying but, unlike the average boy, he kept up his interest.

Before leaving Tech he felt the call to the ministry and afterwards studied at Berkeley Divinity School, Middletown, Ct. Shortly after graduating he volunteered for special service in Sitka, Alaska. Returning to the United States he was married and then went back to Alaska for further experience, among other duties handling all criminals in Alaska as chaplain in the government prison. The Rev. and Mrs. Partridge have one daughter, Miss Dorothy, a sophomore at Wheaton College.

Coming back to the states, he was made rector of St. Paul's Church, Peabody, being ordained to the priesthood there by his brother, Bishop Partridge. He remained in Peabody six years and was then transferred to Marblehead, where he was the rector of the noted old St. Michael's Church for seven years as the predecessor of the Rev. Lyman Rollins. At Marblehead, the Rev. Mr. Partridge took up kite-flying, at first as an amusement and then as a scientific study. He got the children of the town interested and at one time a thousand people, young and old, turned out to witness the prize "kite-flies" conducted under his auspices.

He next became the rector of old St. John's Church, Portsmouth, N. H., and while there acted as civilian chaplain at the navy yard, making a specialty of work at the naval prison, where he founded "The League of the Sacred Name," an anti-blasphemous society, with members all over the world. When the trouble at the Mexican border broke out he resigned and applied for work with the army as a chaplain, but was beaten out by a few hours by a brother clergyman. Then the World War came and presently the United States was involved. Tech sent out its famous questionnaire to its graduates, asking them what they were prepared to do for the country. The Rev. Mr. Partridge replied that he would devote himself to the perfection of his man-lifting kite, the plan for which had been slowly developing in his brain for several years previously. At that time Professor Roche of the Blue Hill Observatory had made some of the largest kites in existence for lifting instruments to record weather conditions, but Mr. Perkins was the only other Tech man who had attempted to do anything in man-lifting kites in this country so far as is known.

"I built my first kite on the general lines of the kind used at Blue Hill," said the inventor. "It was of the box type, an adaptation of the famous Hargrave kite of Australia. I felt that this work was perhaps the best way in which I could use my scientific training and help in the war."

The Rev. Mr. Partridge went back to Tech and, under the patronage of Professor Miller, head of the mechanical engineering department, worked evenings at Tech building the new kite, a large, wooden-frame, land-type model. This was flown for the first time in the court of honor at Tech and the trials proved remarkably successful. Earl Ovington, the noted aviator, another Tech man, was also interested and suggested several valuable points, thoroughly advocating the idea. This first large wooden kite made at Technology was in course of time taken to the Portsmouth Navy Yard by one of the officers there and tested out. It was raised from a small submarine chaser, but developed such unexpected lifting power under a sudden high wind that it was impossible to control it and it had to be cut adrift and it sunk. This, however, was merely an incident in the mind of the inventor and he immediately proceeded to build another kite larger than this previous one and on more improved lines in the Portsmouth Navy Yard. Through the kindness of the commandant of the yard and Thomas Mott Osborne, who was then in charge of the naval prison, he constructed

two larger kites with the help of the prisoners, working with them in overalls sometimes for twelve hours a day in the great fire-room of the prison. After considerable delays he then got official recognition from Washington and the Government built four more of these kites of wood, with regular navy workmen. After more delays and a test by an aviation officer the inventor and the kites were ordered to the naval air station at Chatham, Mass., after a stay of nine months at the Portsmouth yard.

Here the wooden kites which had been broken up for shipment were reassembled and after several weeks tested, with the result that the Government was recommended to build a fleet of them in steel according to the inventor's latest approved plans. It took a trip to Washington and long conferences with the navy heads to O.K. this recommendation, but it finally went through. The designs for these steel kites were drawn up in most careful detail at the Boston Navy Yard under the personal supervision of the Rev. Mr. Partridge by Mark Aronson of Boston, a Technology graduate, and an engineer of great ability, who was then working for the Government. The actual work, plus immeasurable red tape, took many weeks before finally the first of the steel fleet of kites ordered was finished at the Boston Navy Yard by skilled workmen.

What is probably the largest kite in existence stood complete under the skilled direction of Albert Nutter, who has been called the finest hand workman in the city of Boston. In spite of discouragements and rebuffs and in the face of being turned down not less than five times in writing by high naval officials in Washington who were inimical to the whole idea, knowing little or nothing about it, the inventor succeeded in getting the first of these great kites built. Although adverse critics prophesied that it would sink when launched, on the contrary, it floated at exactly its estimated displacement and angle; but before it could be flown the signing of the armistice put an abrupt stop to all further construction and tests.

For a long time the great kite remained at the Boston yard. Careless handling damaged it considerably, but not irreparably. After another trip to Washington, some more correspondence and long waits, Rev. Mr. Partridge was given the privilege of buying it for a nominal sum — not before he had headed off, through Senator Walsh, a determined attempt to have it scrapped — and it was hauled to the Tech aerodrome, where it is now stored.

When inspected the huge kite presented a most impressive appearance. Its frame is seventeen and one-half feet long, twelve feet wide and seven and one-half feet high, but its total weight is less than one hundred and thirty pounds. It has three transverse lifting planes forward and two aft; with two rudder planes or fins in front and four behind. The frame is made of one-half-inch steel tubing and the locks and fastenings of a special alloy of aluminum. It is equipped with shock absorbers and is a miracle of staunchness and rigidity. It is built with the accuracy of a watch and is more an instrument than a mere machine. It is designed on scientific lines and not by "rule of thumb." The planes are of linen made in Belgium on machines which were later on

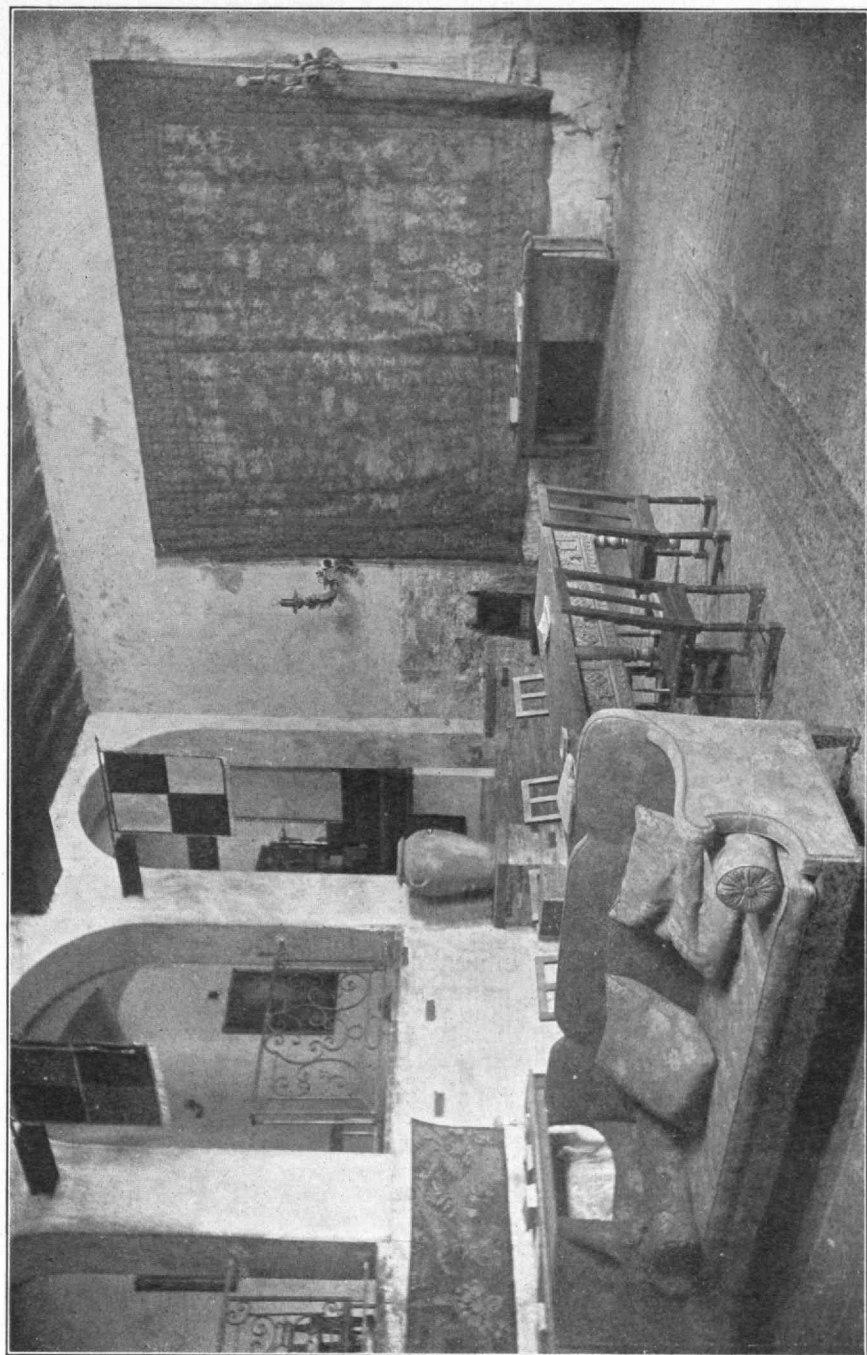
stolen by the Germans. A supply was brought to this country and some of it was obtained by the Rev. Mr. Partridge. The machine can be closed with the utmost ease when desired in less than half a minute and in this shape will pack into a very small space.

He is now intending to bring the matter of this kite at Technology to the attention of the new administration at Washington and to endeavor to have the other original five machines which were ordered finished and given a thorough scientific and practical test by the navy. He believes that if the Government will not act that there are patriotic individuals or organizations who will provide the funds, as he himself spent a large amount of money to develop the kite as a patriotic duty before getting official recognition and offered it for nothing to the Government during the war.

He points with satisfaction to the fact that he has had the enthusiastic support of the Institute of Technology in the person of some of its leading men, such as the late President Maclaurin, Professor Miller, Prof. R. H. Smith, Dean Burton and others; also the help of such men as Senator Walsh, ex-Congressman Olney, Secretary of War, Weeks (when Senator), Colonel Logan, Bishops Lawrence and Babcock of Massachusetts, Rear Admiral John R. Edwards, one of the great engineers of the navy, together with numerous other naval officers of high rank, President Aiken of the Shawmut National Bank and many others in both civilian life and the navy, including officials of the Submarine Signal Company of Boston and the Samson Cordage Company. He was offered assistance by the Associated Technology Clubs of Washington, the National Research Council of the Council of National Defence, and other organizations, and was tendered the use of a destroyer and a submarine by the Government.

At one time, when in great need of money for personal expenses, as through a technicality the navy would not provide for his or his family's personal needs, although giving everything necessary for the kites, a number of friends and believers in the work, because of its patriotic nature, contributed sufficient funds to ensure the needed progress until the slow-moving Government began constructing the kites in steel. Then the Rev. Mr. Partridge finally decided to qualify as a machinist, "first class," under the engineering division, and so kept going for the last few weeks before the armistice. Much of the credit for this greatly needed financial assistance was due to a Boston firm, Messrs. C. H. Conchrane & Company of State Street, who wrote a splendid letter about the inventor and his work to patriotic citizens of Boston, which was answered generously.

The inventor feels no story of this work for the Government would be complete without some public recognition of all that was done to help him in this connection, not only by financial assistance, but by encouragement and scientific aid. It is impossible to name all who helped, but he feels special thanks are due to the men of Technology and others already named, and to T. T. Greenwood and Harry Davis of Boston, who aided greatly in working out his ideas, drawings, calculations and patents.



OLD ITALY IN THE ROGERS BUILDING
The New Commons Room of the Architects

THE NEW COMMONS ROOM IN ROGERS

A room from a Renaissance palace created in the old boiler room
— dedicated last spring

THE architectural department of the Institute left behind in the Rogers Building on Boylston Street when the rest of the Institute moved to its new home across the river, has not only cheerfully accepted its old quarters but has discovered in them unexpected possibilities of picturesque treatment and with true artistic imagination and enthusiasm has created in the basement of the building a quite surprising bit of Old World atmosphere.

The need was felt by Prof. William Emerson when he took charge of Tech's department of architecture, of a place in which the students could meet for recreation and rest, to talk shop or anything else, for reading or just smoking before the fire — some such place, in short, as is supplied for the engineering departments of Massachusetts Institute of Technology by the Walker Memorial in the new Tech group. For a time the architectural students had the use of a small room upstairs in the Rogers Building, and here they assembled during the hours not spent in the lecture hall or over the drawing-board, but the room was wholly inadequate and Professor Emerson hit upon the idea of fitting up a part of the basement formerly occupied by the chemical laboratory and testing-room, into a common room for the students. The result is a most unusual club-room which ought to do a great deal to further the individual comfort, friendships and *esprit de corps* of Tech's embryo architects.

Professor Emerson's idea met with enthusiastic response and the architectural alumni and the Corporation of the Institute, as well as interested friends, gave their support with funds, work and gifts of artistic objects for furnishing and decoration. R. P. Bellows and William T. Aldrich of the firm of Bellows & Aldrich, both graduates of the department, gave their advice for the architectural changes and Tech men in the office of this firm gave their services in drawing the necessary plans. The contractors for the work of alteration were the Whidden, Beekman Company, also Tech men, and they undertook the construction at cost, while A. S. Jenney, an instructor in the department, gave his services as superintendent of the work.

The construction of the basement of the Rogers Building, with its arches of concrete on a stone and brick foundation, and its brick-paved floor, made a setting which immediately suggested itself as a background for Spanish and Italian Renaissance treatment. Furthermore, this part of the basement, with its floor on a lower level to allow the installation of the larger pieces of the testing-room apparatus, permits of a high-studded room of quite distinguished proportions and also a

most picturesque entrance along a balcony on the level of the main part of the basement. From this balcony, the ceiling of which has now been vaulted, one looks down into the Commons Room through the openings of three big arches.

In these arches are set railings of Spanish and Florentine wrought iron, brought by Professor Emerson last summer from an old courtyard in Paris, and on the pillars that support the arches are hung some grotesque wooden heads, the gift of J. Lovell Little, an alumnus of the department. The balcony is further decorated by copies of old Italian paintings, chairs of Florentine design, and a statuette of Macmonnies' "Pan," lent by Mr. and Mrs. Emerson, and effectively placed before a large mirror, which was given by Mr. Bellows, is a feature of the landing of the broad stone steps which lead down into the room.

Two large windows with bits of old stained glass are set high up in the long wall opposite the balcony, and a fireplace, built in the base of an arched wall recess (a flue luckily found near by in the wall making this possible), occupies one end of the room. At the other end there is to be a stage — a large tapestry at present conceals its proscenium arch — and this stage though small is to be completely equipped and will be used for impromptu theatricals and for Tech Show rehearsals.

Surprisingly little had to be done to the room to make it ready for its treasures of furnishing and decoration. The stone steps were put in to replace the original purely utilitarian iron ladder of the laboratory. The brick tiled floor only needed oiling to tone it to a dull, rich color and the whitewashed brick and rough stone walls, mottled with the dampness and discoloration of years, left just as they were, made a most artistic background for the furniture, tapestries and pictures, while the addition of dark wooden beams across the ceiling added to the picturesque quality of the room.

The most noticeable article of furniture in the room is an old Spanish refectory table, dating back to about 1600, its top hewn from a single piece of oak. On this are scattered magazines, architectural reviews and periodicals, and between it and the fireplace are grouped comfortable upholstered chairs, modern manufacture, but chosen with an eye for their harmony in color and design with the rest of the furnishings, as well as for their invitation to lounge before the fire. Along the walls are chairs in Florentine renaissance designs made to order by a factory in Paris and most successfully reproducing the charm of the period.

In the copies of old paintings, the genuine old tapestries, the gift of Ralph Gray, and the bits of embroidery which are hung on the walls in effective places, and in the long, dull rose hangings at the windows, of modern material but made from old designs, the atmosphere of the room is harmoniously kept; and also entirely in the picture is the bust of a warrior carved in oak, the gift of E. S. Dodge, the architect, who is also a graduate and present instructor in the school, which adorns the mantelpiece over the fireplace.

Bits of stronger color are given by the heraldic banners, painted

by W. T. Aldrich, which hang from above the balcony, and in the more subdued notes of the stained glass medallions in the windows. These were brought from Europe by the head of the department and are at least one hundred and fifty years old.

The room as a whole breathes an atmosphere of historical and artistic association and its appeal to the imagination of the student of architecture must be strong, even if sometimes subconscious only. It has already inspired the presentation of colorful events of the past, for a dedicatory pageant and masque was held on the occasion of the formal opening of the room on April 22. In this prominent Boston architects, many of them alumni of the school, took part with the student body and some of the instructors, presenting by groups in costume the different periods of the history of architecture, before an audience composed of the Corporation of the Institute, the Faculty and others prominent in the architectural and artistic life of Boston.

TECHNOLOGY CHINESE ACTIVE IN BOY SCOUT WORK

Moy Ding, '19, leader and others

Boy Scout work in Boston has recovered one of its most picturesque aspects in the reorganization of the Chinese Boy Scout Troop, the only one of its kind east of the Pacific Coast.

William Moy Ding, Scoutmaster and a member of the former troop, graduated from Technology in 1919 and is now a successful business man, a leader in a chain of Chinese restaurants. He is married and has two children. He has three assistant Scoutmasters, all of them members of the old troop, and one of them, like himself, graduate of the Technology R. O. T. C., held during the war. Albert Shue is studying mechanical engineering at Technology. The third "graduate coach," as the four veterans may be called, is Sam O. Moy, now in his second year at Technology in the Department of Mechanical Engineering with Albert Shue.

REGISTRATION REACHES 3535

Shows increase of 99 over last year — the problem of transferring students

REGISTRATIONS figures have been finally tabulated for this year and show a total of 3535, which is an increase of 99 over the high mark set last year. The freshman and sophomore classes contain 700 students each, juniors 800, and the seniors 1000, and there are some 350 graduate students pursuing courses for advanced degrees or taking special work without classification.

The professional courses that have 500 or more students include Mechanical Engineering, Electrical Engineering, Chemical Engineering and Engineering Administration. While for a number of years past the Mechanical Engineering course has been the largest in the school, this year the honors for numerical superiority go to the course in Electrical Engineering. Civil Engineering has 300 students and there are 100 students each in Mining Engineering, Architecture, Naval Architecture and Electrochemical Engineering.

A cursory examination of the registration reveals that the number of foreign students is so great as to warrant the conclusion that Technology has a greater percentage of foreign students than any other college in the country.

An analysis of the report on the registration at the Institute based on the figures of last year, which will be presented to the Corporation at its meeting this week, shows that 38 per cent of the student body of 3436 were men from other colleges and that 15 per cent of all the students held degrees from other colleges. The cosmopolitan aspect of the Institute is shown in the fact that 267 students, representing 37 nations, or 7.8 per cent of all the students, were from foreign countries. The percentage increase of foreign students was greater than the percentage increase of all the students.

All the states and territories of the United States with the exception of Alaska were represented in the student body and Massachusetts led the states with an attendance of 1518, although this number was one less than the year previous. New York came next with a delegation of 341. China sent the most foreign students, these numbering 58. Canada was second with 41 and Norway third with 30.

Among the geographical divisions of the United States all sections except the North Atlantic have a greater percentage increase in the number of students than the percentage increase of the whole student body. The gain from the South Atlantic and North Central states is 24 per cent in each case.

The number of women students, in spite of the increase in registration, dropped from 40 to 38.

The scholarship committee of the faculty received applications from 556 students for aid and of these 220 received rewards from the Institute and 132 received state scholarships. One-half scholarships were held by 99 students. The total scholarship awards amounted to \$34,122.50. The aid of state scholarships has now been discontinued.

Another study in scholarship was made and as before, the second-year class was found to have the lowest standing. Contrary to the results of other studies the fourth-year class was found to drop in its standing and the third-year class to have stood highest.

Among the professional courses the number of students in Mechanical Engineering was larger than in any other course. Next in size came the course in Electrical Engineering and following that the course in Chemical Engineering. Among the larger courses the gain in Electrical Engineering and Chemical Engineering was greater than the percentage gain of the whole student body.

PROFESSOR LAWRENCE CHOSEN CURATOR OF LOWELL INSTITUTE

PROF. WILLIAM HENRY LAWRENCE, head of the department of architectural engineering, has been recently appointed as curator of the Lowell Institute, to fill the vacancy caused by the sudden death last year of Prof. William T. Sedgwick, then in charge of the Institute's Department of Biology and Public Health.

Professor Lawrence, who was born in Boston, entered the Institute after graduating from the English High School and graduated in the Class of 1891. The following year he returned to the Institute in the capacity of an instructor in the Architectural Department. With the establishment of the Architectural Engineering Department, Professor Lawrence was placed in charge, which position he still holds.

PROFESSOR MILLER CHAIRMAN OF THE FACULTY

Other recent changes, appointments and promotions

PROF. EDWARD F. MILLER, head of the department of mechanical engineering and director of the engineering laboratories is the new chairman of the Faculty. Professor Miller succeeds Dr. H. P. Talbot, now acting dean of the Institute.

Professor Miller has been connected with the instructing staff for thirty years, most of that time in the practical steam engineering course. He was prominent in activities of the State Commission on Boiler Regulation. He is the author of a number of technical books and of articles in scientific papers.

During the war Professor Miller was in charge of the work of training marine engineers to handle the war-time merchant fleet that sprung up almost overnight. He established schools in many ports, and got under way the work of training which is still going on. Professor Miller was graduated from Technology in 1886. He succeeded Prof. Gaetano Lanza as head of the mechanical engineering department in 1911.

Among resignations from the Faculty is that of Prof. Dwight Porter, of the department of hydraulics and sanitary engineering, who on October 1 retired to private life after thirty-eight years of service. Professor Porter graduated from Sheffield Scientific School of Yale University in 1880, with the degree of Ph.B. and three years later joined the teaching staff of Technology as instructor of mathematics. He joined the civil engineering department two years later. In 1886 he was made full professor of hydraulics. Professor Porter was a special agent for the United States Census Bureau in the tenth census. He is a member of the American Society of Civil Engineers and of the Berzellus Society.

Prof. Paul G. Woodward, assistant professor of chemical engineering, who has been director of the Everett station of the School of Chemical Engineering Practice, has also resigned from the Faculty.

The other Faculty changes announced by the Corporation are:

Promotions: Associate Prof. H. K. Barrows, appointed professor of civil engineering; Associate Prof. George E. Russell, professor of civil engineering; Associate Prof. Frederic G. Keyes, director of the research laboratory of physical chemistry, professor of chemical research.

Assistant Prof. Theodore N. Taft, associate professor of mechanical engineering; Assistant Prof. C. R. Hayward, associate professor of mining engineering; Assistant Prof. H. G. Phillips, associate professor of mathematics; Assistant Prof. D. A. MacInnes, associate professor of chemistry.

I. H. Cowdry, assistant professor of mechanical engineering; F. S. Dellenbaugh, assistant professor of electrical engineering; L. W.

Parsons and C. S. Venable, assistant professors of chemical engineering.

New Members — Capt. William B. Wright, assistant professor of military science; John W. Bunker, assistant professor of biology.

Prof. Henry H. W. Keith, after several years of absence, has returned to the Institute as full professor of naval architecture and marine engineering.

INSTITUTE THANKED FOR VALUABLE AID AT FIRE

"TIMELY and valuable," was the characterization given to the service rendered by Technology at the fire in the vicinity of the buildings on October 27, according to a letter received by Superintendent Smith from James M. Casey, Chief of the Cambridge Fire Department.

The fire occurred in Sterrit's Lumber Yard on the railroad side of the Institute buildings on the evening of October 7 and by the aid of the fire pumps installed, as Mr. Casey called it, "with splendid foresight," the Cambridge fire force, assisted by the Institute engineers, were able to get the fire under control. It is believed that it was only by the use of these pumps that the fire was localized and prevented from spreading to the Institute buildings. Two pumps, each of which is capable of supplying five streams of one hundred and twenty-five pounds pressure, are kept in readiness. One of these was used with great success. In all about \$50 worth of water was used, the money to be refunded to the Institute through an adjustment of its water bill. The letter from Chief Casey follows:

"I wish to extend my sincere thanks for allowing the members of the Cambridge Fire Department to attach their hose to your fire pumps during the fire at Sterrit's Lumber Yard on the evening of October 7. The service rendered on that occasion by your engineers was both valuable and timely. There is no doubt in my mind but that they were the means of preventing the fire from spreading to the adjacent building on that side of the fire. The installation of those fire pumps was a splendid foresight of some person who must have had in mind the protection of the Technology buildings from just such a fire as occurred on October 7. If at any time the department can be of service to the Institute of Technology, kindly advise me."

EVERETT MORSS, '85, TREASURER OF CORPORATION

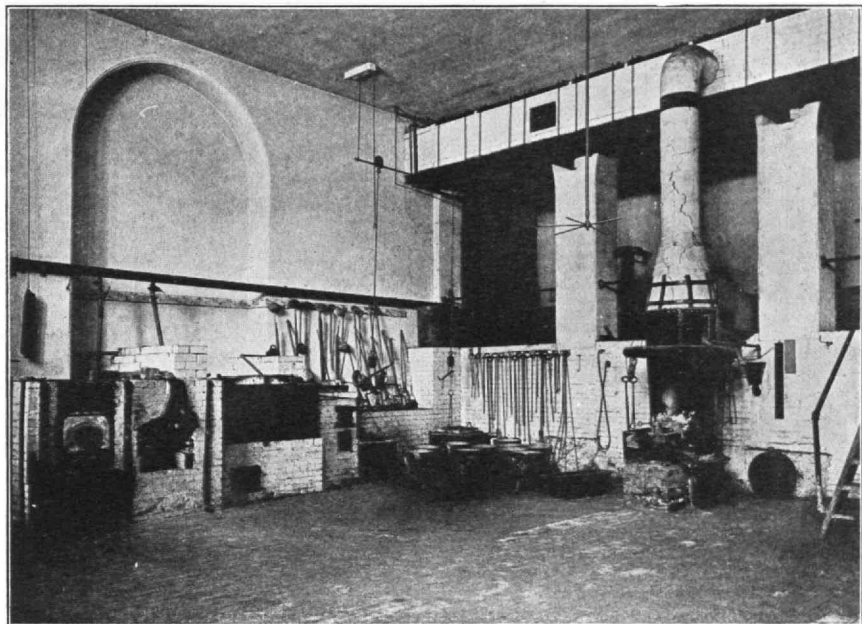
Also President of Boston Chamber of Commerce

At the regular quarterly meeting of the Corporation of Technology held October 19, Everett Morss handed in his resignation as secretary of the executive board of the Corporation, and Francis S. Hart resigned as treasurer, and W. F. Wyeth resigned as assistant treasurer. The Corporation thereupon elected Everett Morss treasurer and H. A. Morss assistant treasurer. Mr. Hart will be a member of the Executive Board.

Mr. Morss was in July chosen president of the Boston Chamber of Commerce to succeed George R. Nutter.

The new president is also chairman of the executive committee of the Chamber of Commerce. He is a brother of the late Daniel D. Morss, for years secretary and treasurer of the Chamber. During the period following the death of President Richard C. Maclaurin in January, 1920, to the inauguration in June of Dr. Ernest Fox Nichols, Mr. Morss, as chairman of the Corporation, Administrative Board, was very active in the management of the Institute. During the war he served as member of the Priorities Commission, later becoming chief of the brass and copper tube section of the War Industries Board, and as such had control of the nation-wide production of this material.

Mr. Morss was born in Boston in 1865, the son of Charles Anthony and Mary Elizabeth (Wells) Morss. He graduated from English High School in 1881 and from Technology four years later. Besides being head of the Simplex Wire and Cable Company, the Morss & Whyte Company and Simplex Heating Company, Mr. Morss is a trustee of the Morss Real Estate Trust, a director of the First National Bank of Boston and a fellow of the American Institute of Electrical Engineers.



AS WE REMEMBER IT: THE BASEMENT OF ROGERS



AS IT IS TODAY: FROM ABOUT THE SAME ANGLE

"BLESS THEE, BOTTOM, THOU ART TRANSLATED!"

COURSE VI OFFERS ANOTHER CO-OPERATIVE COURSE

Public utility training with the Edison Company

EFFICIENCY in the service and the administration of a public utility is recognized as depending in no small measure on the adequacy of the training of men engaged in the practical productive work of the utility corporation. In appreciation of this fact the Institute has added to its curriculum in the department of electrical engineering a course designed to co-operatively provide such training.

Explaining the plan of the course, Prof. William H. Timbie, of the department of electrical engineering points out that there are really four fields of electrical engineering work. The first field is that of handling the electrical and some executive phases of projects such as harnessing river water powers, he said. The second field is that of consulting engineer alone, or attached to some company; the third, that of the manufacture of electrical apparatus including research; and the fourth, that of supplying electrical apparatus, power and facilities to commercial use.

Training men for the manufacturing and research work has already been solved by the Institute through the co-operative arrangement with the General Electric Company. Under this plan students spend alternate terms at the Institute and in the shops of the company, setting practical experience against a background of theory. The need of public utility training has become increasingly apparent, however, and a similar agreement has been entered into with the Edison Electric Illuminating Company.

"In the public utility corporations of the United States," Professor Timbie explained, "are invested billions of dollars. Dependent on these corporations for employment are hundreds of thousands of men and women. There is probably no community the civic comfort and welfare of which does not depend upon the proper administration of one or more public utilities. These corporations often supply water, gas, electricity and local transportation. In order that they may be efficiently conducted all of these undertakings require the services of engineers who are well grounded in the fundamental natural sciences, who have a specialized knowledge of a particular utility, and a broad interest and education in public utilities in general.

"Such men must be able to apply the theories of natural science to the practical requirements of the individual problems as they arise. In order to develop men of the highest specialized and administrative capacities for service with electric power enterprises the Institute has been able to extend the co-operation plan used in manufacturing training to include public utility work."

Professor Timbie briefly outlined the program that has been

evolved, explaining that the course covers a five-year period, the first two years being devoted to the regular electrical engineering course at the Institute, and the last three being divided between the Institute and the electric company's shops. The students, he said, are assigned in pairs, alternating between plant and office at first, and exchanging information and opinions. Specialization according to aptitude is allowed in the last year. During the co-operative period the company pays the student about \$1600, Professor Timbie added, but there is no written contract between the student and the company binding the former to continue work with the latter.

Experience with the co-operative course with the General Electric Company, the professor said, has demonstrated the value of such combined practical and academic training. The application of this idea to the public utility, however, is regarded as having an added possibility in the direction of public service and efficiency.

PRAISE FROM SIR HUBERT

WE hear much about the evil of the preoccupation of the student mind with marks, to the exclusion of values. The real preoccupation with marks should be on the part of the men giving them and thus fixing the standards of their institution. No more useful plan has been devised than that in use in the Massachusetts Institute of Technology where the marks of all students in all subjects are submitted in a tabular view to the consideration of all instructors. The searching nature of this test upon the men responsible for various parts of the educational process needs not be dwelt upon.— *The New Republic*.

SCHOOL OF PUBLIC HEALTH OFFERS NEW COURSES

THE School of Public Health, operated jointly by Harvard and Technology, closed its academic year last June by granting the certificate in public health to eleven men and one woman.

The woman is Miss Bertha Millard Brown of Dorchester. The men are James E. Baylis and Charles L. Foster of the United States Medical Corps; Arthur E. Burke of Watertown, Roy J. Campbell of Sabuttus, Me., Elmer W. Campbell of Oakland, Me., George Fordham of Boston, Harry E. Hitchcock of Auburn, Me., William F. Lawrence of Brockton, Mahidol Songkla of Bangkok, Siam, Joseph F. Vesely of Prague, Czechoslovakia, and Arnold G. Vardon of East Bengal, India.

The administrative board of the School of Public Health now consists of Dr. Milton J. Rosenau, director and acting chairman, Prof. George C. Whipple, secretary, and Prof. C. E. Turner of the department of biology and public health of the Massachusetts Institute of Technology, acting representative of the department. Professor Whipple has recently been elected an honorary fellow of the Royal Sanitary Institute of Great Britain.

A new course of instruction for teachers of public health will be offered this year by the Harvard-Technology school with the co-operation of the Harvard Graduate School of Education. The course will be the first of its kind in the country, and is intended to supply instructors who can teach hygiene or superintend such instruction in the public schools and who can correlate the various health activities of the public school system in the most advantageous way. One year's study will be required to complete the course.

Students who elect the new course will be required to have a high school diploma and in addition to have completed the work necessary for a normal school graduate, graduate nurse with public health training, graduate in physical education, or graduate of an approved college. Students also will be required to have at least one year's professional experience in school or in public health work. Each student enrolled will be obliged to take instruction in the special subject of health education and will be allowed to make up the balance of his course by election from any of the subjects relating to public health work offered at Harvard or Technology, subject to the approval of the Faculty of the Harvard-Technology School of Public Health.

The new course has been offered to fill the need which has been felt for better instruction in health matters in the public schools of the country. At present the health work in the schools is being carried on by (1) the grade or high school teacher, who is occasionally a special hygiene teacher, but more often a teacher of general subjects; (2) the school nurse, who frequently adds to her nursing activities some instruction in hygiene; and (3) the teacher of physical education. Frequently

the school system has suffered from a lack of the co-ordination of these activities, but the most serious and the most common defect at present, it is believed, is the lack of a unified program of health instruction suitably arranged for the various grades and for the high school.

"This new course," according to Prof. C. E. Turner, assistant professor of biology and public health at Massachusetts Institute of Technology, comes in response to a steadily increasing demand for such training on the part of grade teachers, public health nurses with teaching responsibilities, and teachers of physical education. The teaching of personal hygiene and public health has undergone rapid expansion in the last two years, and there is every indication that it will continue to develop.

Some idea of the demand that has been created is to be gained from the large enrollment which greeted the Institute's announcement of a summer course in methods of teaching hygiene and public health. The registration list for that course, which has just come to a close included students from California to New England, from the Philippines and even from far-off Siam. The work given covered such phases of the subject as the organizing of schools for health work; appropriate health activities for the public school system; latest methods of health instruction, including the use of moving pictures on health and sanitation; co-ordination of the various phases of school hygiene; recent experiments and literature; lectures, classroom demonstrations, clinics, and a study of official and private health organizations in a position to co-operate with schools."

Remarkable improvement in the health of the average pupil, Professor Turner declared, has followed the introduction of proper health training into public schools. "It is my opinion that visual education holds out greater promise of successful accomplishment than any other single feature of health training. Experiments conducted in the past year with various health and sanitation films specially prepared for school use, such as those produced by the Society for Visual Education, have yielded surprising results."

Among projected health films which Professor Turner mentioned as likely to be in circulation among the schools next year are reels on "The Human Mechanism," "Food and Diet," "Care of the Teeth," and "Daily Health Habits."

ADVISERS ON UNEMPLOYMENT CONFERENCE

Profs. Davis R. Dewey and Carol W. Doten of the Department of Economics have been appointed to the Economic Advisory Committee of President Harding's conference on unemployment.

NEW FISHERIES ENGINEERING COURSE

By PROF. S. C. PRESCOTT, '94

Professor of Industrial Biology, Massachusetts Institute of Technology

Reprinted from The Tech Engineering News.

ON October 3 the Massachusetts Institute of Technology offered to its students the opportunity of undertaking studies in a new and interesting field to which the name of Fisheries Engineering may be given. Obviously it is intended that this course shall train men to enter and develop the fishery industry in the same way that an Electrical Engineer works in the field of Applied Electricity, or a Sanitary Engineer in the field of Public Health, Water Supply and Waste Disposal on a large scale. In other words he is to bring to bear the facts and principles of science, and by such application there must come increased efficiency, improved methods of operation, and eventually a greater demand for the product which is developed.

Whatever the actual reasons for the present decline in the fisheries industry, it is clear that this enormous industry, which should play such a large part in the development and maintenance of our food supplies, is in imminent need of trained men, and a new door of opportunity is open to the technically trained man. When it is borne in mind that the fishing industry was for decades one of the fundamental industries of America, and second only to agriculture, and that it still ranks very high (fourth or fifth) in our productive enterprises, it may properly be regarded as a field to which the aids of applied science should be directed. It may be claimed justly that here is an industry of enormous magnitude and still greater possibilities which has almost no attention given to it except through the work of the Bureau of Fisheries at Washington, whereas all branches of agriculture, stock raising, forestry, oil production, mining, and other industries based upon or utilizing the great natural resources are being fostered and aided by a large number of agencies, such as the Agricultural Colleges and Experiment Stations, Governmental Departments, and the Universities and Technical Schools. Let it be recalled that every state has at least one College of Agriculture and one or more Experiment Stations, all devoting time and money to help the farmer, the fruit grower or the stock raiser in the solution of his problems. Let it be remembered that at least a dozen schools of mining exist, even in states having no important mineral wealth, and many more are attached to technical schools and state universities. Similarly, and still more directly comparable with the fishing industry, schools of forestry have sprung up in considerable numbers, the aim of which is to aid the lumber industry, save the forests from depletion by unintelligent methods, conserve

the timber supply indefinitely, and apply science to what was formerly done by "rule of thumb."

The problems of the fisheries are just as scientific, and the industry needs the same type of trained men if it is to survive and to handle with efficiency the questions of conservation and perpetuation of fish foods, improved methods of food preservation, and the prevention of the enormous waste that now takes place. The keen minds in the industry, those who have given deep thought to the matter, have claimed, and I believe justly, that if a suitable course of broad technical training could be supplied, in other words, if a new profession based on an old industry could be created, the industry would absorb eagerly the men so trained, and would be greatly benefited thereby, and that this benefit would quickly react to give us greatly improved fishery products and a stabilized industry. The leaders in this work would be essentially engineers or applied scientists in the same class with the agricultural expert, the trained forester or the mining engineer, for an engineer deals not merely with machines but with the forces and resources of Nature.

The training essential for men of this type, who will eventually become leaders in a great basic industry, must be broad as well as practical. As good citizens and men of affairs they must have general knowledge as well as specialized knowledge. Hence the course of study which they follow should be strong in general studies such as English, economics, mathematics and chemical and physical sciences. In the specialized fields there are certain lines of prime importance. Obviously the first to be considered is the biological, for the men must know much about fish, their habits, their enemies, their foods, their breeding peculiarities and their life histories. Since the fish are to be frozen, dried, canned and preserved in various ways, as well as sold in fresh condition, knowledge of the causes of spoilage and deterioration is essential. This involves a thorough study of microbic life or bacteriology, and parallel with this, studies in organic chemistry and biochemistry. As the preservation of food materials by refrigeration, dehydration, salting, smoking or canning is based in every case upon the destruction or inhibition of bacterial life, the technology of fishery products is in part a biological matter. It is in part also a matter of methods and machinery, so it is necessary for the fisheries engineer to have a sound fundamental training in mechanism, in the types of engines he is likely to have to use, and in the proper control of his machinery. Under the subject of heat engineering he acquires training to meet these demands. The mechanical and engineering subjects therefore comprise a second group of subjects. Navigation may also be included here.

A third group of subjects deals with the economics of the industry and with its industrial relations, and with general business administration. Accounting and cost accounting, statistics and their collection and use, industrial organization and business management and business law supply the needed fundamentals in this field. Under the general subject of business management will appear such important matters as

transportation, publicity, marketing, sales management, and the many other phases of activity necessary in a thoroughly organized industry.

Finally, a fisheries engineer should know how to supervise the health of his employees, safeguard his products, maintain his plant in a clean and sanitary condition, and advise in matters of personal health habits. A group of subjects bearing on public and personal hygiene and plant sanitation equips him for this phase of his future work.

The course in fisheries engineering as it has been thus briefly and roughly characterized is seen to be a composite of subjects in the Departments of Biology, Mechanical Engineering, Chemistry and Engineering Administration. It is comparable with the other four-year courses offered at the Institute and leading to the degree of Bachelor of Science. While the largest percentage of work will be in the Department of Biology and Public Health, the engineering subjects will be taught in the Department of Mechanical Engineering, and the business subjects in the Department of Engineering Administration. The work of the first two years is largely in fundamental general subjects, while that of the last two years is largely devoted to specialized studies particularly applicable to the fisheries industry. The requirements for admission to the course are the same as for the other professional courses, and it is regarded that the satisfactory completion of the prescribed course of study stamps the man with a professional attainment of as high standard as the training in the older courses such as civil or mechanical engineering or chemistry or architecture.

It is worth noting that what applies to the fishery industry is equally applicable to the other food industries. We might properly expand the course and call it Food Engineering and this may later be done. It is only necessary to modify in some degree the subject matter of a few courses to provide a training that might find application in meat packing, or in the canning and drying of vegetables and fruits or in other food industries. All types of processes of food preparation and conservation have progressed from the simple domestic or home industry, through the small factory stage, until today they are developments of large units, and have become the focus for a special type of engineer who can visualize and can realize production on a large scale. It is a safe prophecy that the term "food engineer" will be common within five years. We have "refrigeration engineers" already.

The course of study which has been outlined has received the hearty approval of the industry, the trade journals, Chambers of Commerce and representatives in Congress, the United States Bureau of Fisheries, and the Commissioner and Deputy Commissioner have kindly offered the heartiest co-operation in every possible way. Already one investigator has been detailed to work in the Biological Department on a special problem of much importance, and others are likely to be assigned here as rapidly as they can be trained. It has also received the support of the state conservation commission, of the Federal Department of Agriculture through the Bureau of Chemistry, and of various official and semi-official organizations. The Bureau of Fisheries has

promised to detail experts to aid in instruction, and has already expressed the hope that trained men may soon be available from this course for the Federal service in the Bureau as investigators and engineers. They predict that the industry will absorb the greater number of men who receive this training, but that they can take a number of men yearly. The problem at the moment is to supply the men. The student looking for a new field of usefulness may well give this careful thought.

CHORAL SOCIETY FORMING

Alumni near Boston Welcome

By the time this appears the newly formed Technology Choral Society of the Institute will have begun its rehearsals under the leadership of Stephen Townsend, the well-known choral director, who consented to take the position through his friendship for Fred Bullard, '87, author of *The Stein Song*. The organization expects to meet at Technology on Friday evenings to sing good music. Alumni living near Boston will be heartily welcomed and invited to sing with the undergraduates.

THE INSTITUTE AND THE RAILROAD STRIKE

Corporation and Institute Committee offered aid

AMONG the first of the great educational institutions of the country to offer services and equipment to the Government in the threatened railroad strike was the Institute. The executive committee of the Corporation sent a letter to Governor Cox placing at the disposal of the Commonwealth of Massachusetts the facilities of the Institute and announcing that plans had already been started to provide instruction in the practical phases of railroading for such men as may be sent to it. The letter follows:

"October 18, 1921.

His Excellency, Channing H. Cox,
Governor of Massachusetts,
State House,
Boston, Massachusetts.

Your Excellency:

The Executive Committee of the Corporation of the Massachusetts Institute of Technology feels that in the present emergency it is the duty of the Institute to assist the Commonwealth in every way in its power.

We have prepared tentative plans for the immediate organization of a considerable body of men of such previous education that, after a short course of intensive training, they will be able to take the places of men who may leave their work should the threatened railroad strike occur.

We await your commands.

Very respectfully,

For the Executive Committee.

EVERETT MORSS, *Secretary*.

The Institute Committee, Donald Carpenter, '22, chairman, also placed the services of the undergraduates at the service of the State.

The intensive training in railroading which it was proposed to give covered chiefly the instruction of engineers in the care and operation of a locomotive and the air brake system and in reading signals. There are in operation at the Institute courses dealing with various phases of railroading including maintenance and operation of locomotives and signals. It would also have been possible, had the need arisen to train men for the operation and care of motor trucks.

It was thought that men competent to run locomotives would be trained in a very short time. If a man has had the benefit of the shipping board training five days would probably suffice to make him competent

to run an engine. A man familiar with stationary engines could also be put through the course in a few days.

The Institute feels that it is its duty to offer its services to the Commonwealth in an emergency so that the daily life may be carried on with a minimum of privation. The existence of its equipment it considers entails the obligation to render assistance.

In the event that the strike had gone into effect, the operation of the Institute, according to A. S. Smith, Director of Buildings and Power, would not have been affected. Only tidewater coal is used in the power plant. To forestall any possible difficulties a reserve supply of 1,000 tons was laid in.

A MILLION DOLLAR BEQUEST FOR M. I. T.

As well as others, not so large, but not inconsiderable

By the will of the late Francis Appleton Foster of Weston the Institute will receive a million dollars. Beside this, Charles Church Drew of Boston left Technology approximately \$330,000 and the late Col. Samuel P. Colt of Rhode Island, president of the United States Rubber Company, bequeathed \$10,000 to the school.

WELL-KNOWN VETERAN EMPLOYEE RETIRES

Had served twenty-six years in Rogers

JEREMIAH W. HALLERAN retired in August 27 from active duty in the carpentry department of Massachusetts Institute of Technology, after twenty-six years of continuous service.

A visitor to Rogers on the last day would have found Jimmy going about doing the last odds and ends of final jobs which had been given him, with something of an expression of regret. For all his seventy-four years, he was still very much on the job, and hated to leave Tech and its surroundings because it had become such a part of his very life.

Jimmy became identified with Tech in the days when General Walker was president. He grew up with the institution through the successive regimes. Much of his work was under the direction of Professor Chandler of the Department of Architecture, and Professor Richards, head of the Department of Mining.

He attended both the Buffalo Pan-American Exhibition and the St. Louis World's Fair, assisting in setting up the Technology exhibit at both.

"When I came here, that was practically all there was to the Institute," he said, pointing to two near-by buildings. "Now it takes fifteen minutes just to walk through the new buildings. In those days the electrical department consisted of just one room in the Walker Building.

The gymnasium which was in use when I came was scrapped a few years after and a new one built. Now that new one has been turned into a factory. The mechanical laboratory consisted of a small place on Garrison Street and today look at it; unequaled in all the world.

General Walker was as fine and liberal a man as ever lived. He always had a smile and a 'good morning' for us all, whether students or employees; but the boys never could take advantage of his good humor to cut up very much.

And speaking of pranks, human nature seems to remain pretty much the same. The boys play the same old tricks with smelly chemicals that they always have played, only now and then in a new way. I sure was disappointed when they abolished the cane rush fourteen years ago because a student was killed.

I know I always liked a scrap or a good tough game of hockey when I was a boy, and I think it's a good thing for them. Of course we still have the 'book rush', but it isn't much like old times.

Do the boys work and study less these days than they used to do? I should say not; not here at Tech. They can say what they like about boys dodging hard study these days, but in all the twenty-six years

I've been around here I've never seen them work harder and keep at it the way they have these last couple of years."

For many years Mr. Halleran has been president of the Mutual Benefit Association of Tech employees.

CONCERNING TECH'S NAME

A letter to the editor invites consideration and discussion

I CANNOT tell how many times I have been embarrassed in trying to tell people what college I attended.

The conversation goes something like this:

"I took my college work at Tech." This apparently is what any Tech man would say feeling, as we all do, and with good reason, that "Tech" can refer to but one college and that, by the way, the first college that ever bore the word Technology in its name.

"Oh, yes, Carnegie Tech; a fine school, I am sure. What a fine place Pittsburgh must be for a scientific school. There is so much in the way of technical work done there."

Then you begin to explain:

"No, I did not go to Carnegie. In fact, I never was in Pittsburgh until long after I got my degree. My college is the Massachusetts Institute of Technology in Boston."

"Oh, I see now. You mean Boston Tech."

The fact of the matter is that I did not get my degree from Carnegie Tech nor from Boston Tech. I got it from an institution for whose good name my respect and love increases as the year of my graduation gets farther and farther away. And I do not like to see even her name taken in vain. I do not think it is fair to Tech to have her name borrowed by other institutions which are engaged in somewhat the same work. I wish our grand old man had copyrighted the name he applied to the Institute so that it would always signify our own Tech.

That cannot be done at this late date. The distinguishing word in our Tech's name is Massachusetts. The rest of the title is applied to at least four technical schools that I can easily recall: Stevens, Armour, Carnegie and Georgia. There may be others.

There are other institutions that also have the word Massachusetts as the keyword of their names.

What would you say to dropping the present name entirely and using the name of our far-sighted founder? What if we called the Institute just Rogers Institute?

" '09"

THE UNDERGRADUATE AND THE "H"

An Editorial from *The Tech* on the re-establishment of the old grade

WHEN the Registrar's office announced the Faculty decision to record an "H" for a mark of 90 per cent or more, a great many students were surprised to learn that a mark of 90 per cent is actually attained at Technology. Beyond serving as information on this point, the average student did not believe that the announcement was of particular significance to him; he did not think that instructors would order rubber stamps of the "H" in anticipation of its frequent use. There are, however, numerous aspects of the subject which have an important bearing on the Institute's educational activities.

The "H" is by no means something new here at Technology. It was in vogue from very early days, and was abolished in 1894 because there was too much competition for it. One of the reasons for its re-establishment is that there are not a sufficient number of marks at present, especially since the removal of the "L." It is more desirable to make a greater differentiation between grades, since the present system indicates very little beyond Pass or Fail. Furthermore, it was thought desirable to have some mark of distinction for students who attain excellence in their work. It is intended as a recognition of merit habitually displayed rather than as an inducement to study. It is plain that such a mark will not make students exert themselves merely for the sake of obtaining it; in fact there is not much eagerness manifested for a "C." The average student is interested mainly in getting something out of a course, and in passing it. He tries to make his mark high, but he will put in very little extra effort to make the difference between a "P" and a "C," much less for an "H."

There are things that could be done, however, that would raise interest in the new mark. One method is to excuse from the final examination those students who attain a record of "H" in their class work. The loss of the reviewing characteristics of the final examination, which this proposition would entail, may be an argument against the adoption of such a method, but a man who can get "H" throughout the term, certainly knows more of a subject than the man who, after a thorough review, receives a lesser mark.

Another scheme is that already tried by a number of departments. Last year the English and the Mathematics Departments established special classes for the men who received credits. This year the Electrical Engineering Department is doing the same thing. In these classes the regular work is left entirely in the hands of the student, and all of the recitation time is spent on work of an advanced nature. This is in keeping with the principle advocated by many educational authorities, that students of greater ability should be given an opportunity to work

to the best advantage, and not be restrained by the slower members of the Class. It is to be hoped that other departments will soon emulate this example, and thus make for a maximum efficiency in the methods of instruction at Technology.

CHEMISTS WISH TO HONOR TALBOT

THE members of the Northeastern Section of the American Chemical Society have formally expressed their intention to vote for the nomination of Professor Talbot as president of the national society. Word comes from over the country that similar action is to be taken by other chemists. The council of the society elects the president from the list of four nominees submitted by its members. Professor Talbot has been active in several offices in the society and has been chairman of a number of its important committees. He has been a member of the council for a great many years and was last year elected one of its five directors who determine the more important policies of the society and have full charge of its finances. The position to which many of the chemists of the country wish to see Professor Talbot elected is the highest honor which can be given a chemist by his fellows.

TECHNOLOGY A SCHOOL FOR GRADUATES

IN the report which the Registrar recently submitted to the Corporation, the registration of the Institute for this year was given as 3,535, the largest in the history of the Institute. This is a fine showing, but we are apt to overlook the fact that the Institute is undergoing other changes than one of mere growth. A study of the statistics on the registration of students from other colleges brings out some points which are worthy of our attention.

In 1914, for example, the number of graduate students at the Institute was 238, while the total number of students from other colleges raised the total to 18 per cent of the Institute registration. This percentage increased evenly to about 25 per cent in 1917, but in 1918, the year of the Army Training Corps, it dropped again to less than 10 per cent. Since the war the percentage has increased until in 1920, the year just past, it reached 36 per cent, while 15 per cent attended the graduate school.

Just what do these statistics mean to the undergraduate? Without doubt, they show that the percentage of student graduates at the Institute is constantly increasing. This year's figures would seem to indicate a slight falling off. Definite statistics are not yet at hand. A report on the army officers who are taking up ordnance work is not yet completed; but even without this information it is certain that the proportion of students at Tech from other colleges is only slightly lower than last year. There are many reasons which could account for this slight droop in the curve for this year. Not the least important of these are the financial depression and the increased cost of the Institute courses.

But even if we take into consideration the slump in this year's curve, we can see by a comparison of statistics that, even under the present conditions, the proportion of students from other colleges is greater this year than it was under pre-war conditions. The number of students who come to the Institute directly from preparatory schools is constant. But this would not seem to us to be distinctly encouraging, for if over the last four years the number of students who come to Tech directly from preparatory schools is constant, the percentage of students entering Tech in this way must have fallen off fully 25 per cent.

The registration of students from other colleges, then, is constantly increasing. But what is more important, it is increasing faster than is the total registration of the Institute. They are in a constantly growing proportion. Without a doubt, these figures indicate a marked tendency in the Institute toward becoming a school for graduates. In spite of the financial depression of this year, we are farther advanced in that direction than we were in 1916 before the great increase which war conditions brought on. This is the situation. It seems not unlikely that before many years Tech will have become exclusively a graduate school.—Editorial *The Tech Engineering News*.

UNDERGRADUATE ACTIVITIES

BY INGRAM LEE, '24

THE times have changed since the days when some of you who will read this were back "at the Tech on Boylston Street." But, however, the times and the customs may change, the old spirit of the alma mater lives on unchanging. For you who have kept alive your interest in undergraduate activities this is especially written; but it is hoped that any who may read it may find in the student activities of today a gleam of the old spirit of the Technology you knew.

The third term of the last school year brought to a fitting close eight months of successful school life, in which athletics, publications, clubs and societies all played their parts. Lack of time and funds are, quite naturally, a great hindrance to the athletic teams, so that the so-called major sports, football and baseball, find little place in the Technology schedule. In the other divisions, such as boxing, wrestling, track, crew and soccer, the results have upheld the honor of the Cardinal and Gray.

One of the most important events of the school year took the form of an intercollegiate conference on undergraduate activities, held at Technology from April 15 to 17. The predominance of the Institute's influence in this conference is a convincing argument to show that, in spite of the rigid standards of scholarship Technology maintains, her importance in the undergraduate affairs of the greater schools of the nation is of the first order. The idea of the conference originated with Dean Burton, then Dean of the Institute, who made the suggestion before a meeting of the Alumni Council. The matter was taken up by the Institute Committee in November of 1920, and resulted in a proposal to four other of the Eastern colleges. A meeting was called of representatives from Princeton, Cornell, Dartmouth, and University of Pennsylvania, with the Technology representatives. These delegates comprised the Executive Committee of the Conference. The Committee was made up as follows: W. R. Barker, '21, Technology, general chairman; J. C. Telmosse, '21, University of Pennsylvania, student government; T. C. McEachin, '21, Princeton, publications; D. B. Strickler, '21, Cornell, athletics; and S. B. Gorham, '21, Dartmouth, dramatics and musical clubs. The colleges represented were: Amherst, Brown, Chicago, Cornell, Dartmouth, Harvard, Illinois, Iowa State, Lehigh, Maine, Massachusetts Agriculture, Michigan, North Carolina, Ohio State, Pennsylvania, Princeton, Yale, Purdue, Stevens Tech, Washington and Lee, Ohio Wesleyan, West Virginia, Williams, Wisconsin, Columbia, Bowdoin, Pennsylvania State and Vermont.

Four meetings were held in Walker Memorial after the assembly of the delegates, one discussing each of the four activities. Each college

was asked to send four delegates to represent them at all of the four meetings. The Executive Committee acted as chairman at the meetings and limited the discussion to the major questions. The heads of the various activities gathered the data on the subjects which they wished brought up at the Conference in connection with their activities. The Institute was represented at the Conference by R. H. Smithwick, '21, student government; W. W. Russell, '22, athletics; A. J. Browning, '22, publications; and Stuart Nixon, '21, musical clubs and dramatics.

The month of March saw the conclusion of the regular wrestling season, when, on the third, the Technology mat men took the bout with Harvard, 14 to 9. Yale, seven years undefeated, met her fate, and the Sons of Eli grovelled before the Engineers. The Tigers proved less tractable to the efforts of the Technology weights; but the deficiency was made up when Brooklyn Polytech took the 3 of a 28 to 3 score. All in all the Institute scored a total of 112 points to 71 total of all other opponents. On March 20, Technology took the New England Amateur Athletic Union championship in three weights. The stars were Tuttle, 115 pounds; Buttler, captain, 145 pounds, and Humphreys, unlimited.

Similar to the wrestling, the basketball season closed with a defeat of Harvard, this time 23 to 19. A few days later, on March 24, the Technology crews took to the water. The basin of the "glorious Charles" sounded the cries of the coxswains and the splashing of the long, outriggered sweeps. Under Coach Pat Manning and Manager Larry Davis, '21, the crews were conditioned for the season. May 2 the freshman crew met and defeated Stone School by three shell-lengths. Shortly after, on May 14, the junior varsity lost to the blue sweeps of Yale, on the Housatonic. To balance this, the freshman backs bent against Exeter Academy with victorious results. The junior varsity tied Harvard; but the varsity crew, lost to the Crimson shell. Larry Davis was awarded the straight "T," and the work of all the crews was highly commended by William Haines, head coach of Harvard and former champion sculler of England.

Track events have always held an important place in the athletic schedules of the Institute, and the spring of 1921 proved no exception. Coach Kanaly worked faithfully, training the men for the meets with Harvard and Dartmouth, the Penn Relay Carnival, the New England Intercollegiate Athletic Association and the American Intercollegiate Athletic Association. In keeping with the records of the four preceding years, the Cardinal and Gray banners bore away the laurels of the New England Intercollegiate meet, May 21. Technology gathered 46 points, scoring in all but three of the most important events. Boston College took second with 23, and Williams third. "Mich" Bawden, '21, captain of the Engineer team, broke the Tech field record in the half mile when he covered the distance in one minute and fifty-seven seconds. The Harvard meet, May 7, was lost, in spite of the good work of such men as "Billy" MacMahon, Technology's famous two-miler, and Dandrow, the "Technology Hercules." MacMahon made a nine minute thirty-seven and one-fifth second run of the two mile course, and finished

nearly one and a quarter laps ahead of the nearest Harvard runner. In the twenty-seventh annual Relay Carnival of the University of Pennsylvania George Dandrow established a new American Collegiate record by heaving the 56 pound weight a distance of 32 feet, 3½ inches. At the American Intercollegiate meet, in the Harvard Stadium, May 27, Dandrow set the Collegiate record for the hammer. The Dartmouth meet on May 14 resulted in a 59 to 58 victory for the "Beavers." Technology took the 100 yard, the 220 yard and the 440 yard dashes. Ted Spitz did his first heat in the 100 yard in ten and a fifth seconds over a track soaked by two days of rain.

The "Frosh" team fared not so well, losing to Andover in a meet on April 30. In like manner the tide of fortune of the Senior Class team ebbed under the influence of the Class of '22, in the spring interclass meet. The "Engineer" Rifle team turned off some remarkable scores during the season. In the Princeton match, March 31, Technology shot 498 out of a possible 500, to Princeton's 479. Against Harvard the team made 412, Harvard taking 392. During the week of April 10 to 17, the "Beaver" team piled up a score of 989 and captured the Massachusetts State title. The last match was held with Cambridge, England, the results of each shooting being cabled. In this match Rubins of Technology made a perfect score of 100 out of possible 100.

Not alone by athletic achievements have the Institute activities made themselves known; the publications contributed much of general interest during last term and the early part of this year. *The Tech* with its "record of continuous news service for forty years;" *Technique*, year-book of the Institute, and *Voo Doo*, compendium of college witticisms, all held their own throughout the year.

Beginning September 28, *The Tech*, Volume XLI, under A. J. Browning, '22, as general manager, started on its new policy of publishing three issues a week instead of two as in previous years. In addition to this a rotogravure section is issued monthly. This change of policy necessitated a much larger staff and a call was made for sixty candidates for the various departments. New departments which have been added to the staff recently are the theatrical, the features and the photographic departments.

Technique's call for candidates was made October 5, and the 1923 Board is hard at work on the preliminary duties. *The Tech Engineering News* appeared for the first time this year on October 3; while Phosphorus waited until the twenty-first to give out his first *Voo Doo*. Phosphorus is represented this year by G. F. Nesbitt, '22, general manager, and Malcolm Johnson, '22, managing editor.

The cross-country team opened the season by defeating Harvard 40 to 18, on October 21. Captain Elmer Sanborn, '22, led the victorious runners, followed by Flanders and Hendrie. The track team held a meeting October 3, and planned the year's schedule to include meets with Harvard, Dartmouth, Cornell, Penn Relay Carnival and the Intercollegiate Amateur American Athletic Association. Exeter, Andover, Worcester and Harvard freshmen will be met by the freshman

track team. An enrollment of 115 men for the track teams during the first two days broke all previous records, and speaks well for the spirit of this year's teams. The running team has been unfortunate in having three veterans ruled out by the doctors — Dandrow, MacMahon and Bawden will not run this year. The freshman team is strengthened by the addition of R. G. Hills, a member of the American Olympic team.

The first soccer game of the season was with Dartmouth, October 21, Technology losing 1 to 0. Other games are to be played with Harvard, Amherst, Clark and Springfield. The swimming competition has been opened; and the Boston Young Men's Christian Association has agreed to loan its tank for the Boston meets with Amherst, January 14, Wesleyan, February 7, and Yale, February 25.

Most of the actual preparations made in athletics thus far, however, have been concerned with the field day teams. On November 4 the Class of 1924 will clash with 1925, with crews on the Charles, and on the field with foot-ball, tug-o-war and relay teams. Both foot-ball teams are fast working up their organizations. The 1924 squad is in the hands of "Doc" Woodruff, three years on the Navy varsity, and Jack McCue of the University of Virginia. The sophomores won from Providence College but lost to the Brown second team; while the freshman eleven lost to St. John and then defeated Tuft's freshmen.

The big event of the year thus far was the annual All-Technology Smoker in Walker Memorial, October 14. Boxing, wrestling, speeches, movies, together with a supper and smokes for all, made up an evening dedicated to the welcome of the freshmen and the promotion of the spirit of good-fellowship throughout the student body. Duncan Linsley, '22, Chairman of the Committee, left nothing undone which might have added to the spirit of the occasion. Boxing and wrestling in the gymnasium preceded the supper which was served in three divisions or "shifts" because of the immense crowd. The big dining hall of Walker Memorial was packed with students to hear the speakers. Among these were: A. J. Browning, '22, of *The Tech*; Hall Kirkham, '23, of *Technique*; D. F. Carpenter, '22, of the Institute Committee; R. C. Rundlett, '22, of the musical clubs; T. M. Taylor, '22, of the athletic association and G. F. Nesbitt, '22, of *Voo Doo*. Last year's field day movies were shown and were greeted by cheers from such of the victors as were present. The big "hit" of the evening ensued when W. C. Groce, '22, leading man in last year's Tech Show, gave a musical history of the institution to the tune of "Wonderful Lines," one of the hits of the show. The cleverness of the verses brought on great applause and a demand for two encores. Other specialty acts were a piano duet by Minton and Rogers, '22, and a Tech show song by Parke D. Appel in his costume of leading lady of the "Purple Dragon."

On October 3, the opening day of the Institute, Dean Talbot, Professor Miller, and Coach Kanaly addressed about 500 men of the freshman class. "The Past, Present and Future of Technology" was the subject of the talks. The presidency of the sophomore class, left vacant by A. J. Kemp's failure to return this year, was given to D. H.

Keck. The election of Coach Kanaly to the Faculty of the Institute was announced at a dinner for the Varsity Club on October 7; this is an honor seldom conferred on college coaches but one which Kanaly's faithful service to Technology has well merited.

During the first few weeks of the term the Technology Christian Association was occupied with four branches of student work. A book exchange was conducted for the benefit of those wishing to save; 2,000 copies of the Institute handbook were distributed; rooms were provided for 1500 men; and a student employment bureau was maintained. To obtain the money for the upkeep of the organization a drive was opened on October 10 to secure \$2300. This money was to come as voluntary subscriptions from the students and is to be expended on seventeen branches of student activities.

Accompanying the T. C. A. drive, on October 13 the combined Professional Societies began a campaign for new members. Booths were placed in the lobby and posters and placards were located through all the buildings. The Civil and Chemical Societies led with 200 new members each; the Electricals followed with 175. The individual societies have held their first meetings and planned for the coming year. Corporation XV intends to have weekly moving pictures; the corporation has affiliated itself with the American Society of Industrial Engineers. The Mechanical Society held an opening smoker October 19, at which Professor Miller and Professor Hayward were speakers.

Tech Show, the musical clubs, and the various other organizations of the Institute are all making preparations for a big year. So it appears safe to predict that in spite of slide rules and entropy tables, in spite of F's and double F's, the spirit of college fellowship will be kept alive and active for some time to come.

LO, THE POOR INDIAN

DR. ARTHUR D. LITTLE, '85, president of the Alumni Association and, incidentally, somewhat known as a chemical engineer, has been recently appointed by the Harvard Board of Overseers to one of its Visiting Committees, to the Department of Indic Philology.

A UNIQUE HONOR FOR FARWELL, '93

Alumnus is beneficiary of new plan in education

ARTHUR FARWELL, '93, has been awarded the first "Composer's Fellowship," which has just been established by the Pasadena Music and Art Association. This benefaction carries an annual honorarium of \$2,000. Its purpose is to give the same sort of aid to music that the sciences receive through endowments for research work.

The sole requirement is that the holder of the fellowship shall devote at least half of his time to musical composition. Mr. Farwell is one of the foremost American composers and music critics. He will take up his residence in Pasadena immediately. During the past summer, he conducted a course in community music and music drama in the Summer Art Colony, sponsored by the Pasadena Community Playhouse Association. It was this that drew the attention of the Music and Art Association to his work.

Although graduated from the Massachusetts Institute of Technology in 1893 as an electrical engineer, Arthur Farwell has made music his life work. After four years of study in Boston under Homer Norton and T. P. Currier, he brought out, under the guidance of Edward MacDowell his first compositions, "Tone Pictures After Pastels and Prose." On returning from several years of study abroad, Mr. Farwell became lecturer on musical history at Cornell University, remaining there until 1901.

A presentation of one of the Bohemian Club grove plays, near San Francisco, aroused Mr. Farwell's interest in the pageant movement, which resulted in his joining in the formation of the American Pageant Association, with a determination to develop the musical aspect of the pageant as fully as possible. His first work along this line was to compose the music for Louis N. Parker's "Joseph and His Brethren."

The music for Percy Mackaye's "Caliban," produced in New York for the Shakespeare Tercentenary, was written by Mr. Farwell. In 1917 he again collaborated with Mr. Mackaye, composing the music for "The Evergreen Tree," which is regarded as one of the best examples of community music drama. This is to be produced in Pasadena during the coming Christmas season. Mr. Farwell will direct the musical portion and Gilmor Brown, of the Community Players, will stage the dramatic features.

INAUGURAL OF PRESIDENT AYDELOTTE AT SWARTHMORE

Former English professor, in his address advocates honor and
pass degrees — Dr. Talbot represents Technology

PRESIDENT FRANK AYDELOTTE took issue with educators who urge that only intellectually inclined students should be given college training, in his inauguration address at his formal installation as head of Swarthmore College on October 22. The inauguration was a most notable event in the history of the college, and presidents of twenty-five colleges were among the delegates of one hundred and fifty educational institutions attending.

"I do not believe that we should deny to the average or below average student the benefit of a college education," said the new president. "He needs this education, and we need his presence in the colleges, but we should not allow him to hold back his more brilliant companions from doing that high quality of work which will in the end be the best justification of the time and money which we spend in education.

The method of doing it seems clear: To separate those students who are really interested in the intellectual life from those who are not, and to demand of the latter in the course of their four years' work a standard of attainment for the A.B. degree distinctly higher than we require of them at present and comparable perhaps with that which is now reached for the A.M.

We could give these more brilliant students greater independence in their work, avoiding the spoon-feeding which makes much of our college instruction of the present day of secondary school character. Our examinations should be less frequent and more comprehensive, and the task of the student should be to prepare himself for these tests through his own reading and through the instruction offered by the college; he should not be subjected to petty, detailed, day-by-day restrictions and assignments necessary for his less able fellows.

"We can never again return to one course or two for all our students of liberal arts, but we must simplify and unify the courses for the A.B. degree, allowing a certain number of major choices as to subjects, and once the major choice is made, insisting rigidly on the implications of that choice. We should test the student's proficiency in a group of related subjects by comprehensive examinations which will demand a perception of the relations between different subjects, which will make each year depend upon those that have gone before, which will eliminate the possibility of success of cramming, and which will enable us to substitute a qualitative for a quantitative standard for our degrees."

Inauguration of President Aydelotte at Swarthmore 599

President Aydelotte was inducted by Wilson M. Powell, president of the corporation. Other speakers were William C. Sproul of Swarthmore, '91, Governor of Pennsylvania, for the alumni; Prof. Spencer Trotter, as senior member of the Faculty; President Frederick C. Ferry of Hamilton College, on behalf of the American colleges; Chancellor Ernest H. Lindley of the University of Kansas, for the American universities, and Prof. Roger B. Merriman, Oxford, '97-'99, Balliol College, for Oxford University.

The new president is a graduate of the University of Indiana, 1900; Harvard A.M., 1903; B.Litt., University of Oxford 1905-7. He has published several books on the teaching of English, etc., his best known being "The Oxford Stamp," 1917. During the war he was international director of the War Issues Course in the War Department, and recently professor of English at the Massachusetts Institute of Technology.

Professor Talbot, chairman of the administrative committee was the delegate from Technology at the exercises.

TAKUMA DAN, '78, IN AMERICA

Noted Japanese industrial leader, Technology graduate

DR. TAKUMA DAN, '78, manager of the great combination of Mitsui mining and financial interests in Japan, landed in Seattle late in October, at the head of a delegation of bankers and merchants come to study business conditions here in America. He will visit the East later.

NOTABLE ETCHINGS BY GEORGE C. WALES, '89

Architect and lover of the sea

TWENTY-SIX etchings of the sea by George C. Wales, '89, were exhibited during October in Boston. They are for the most part graphic delineations of old-time sailing vessels, the splendid old Yankee ships of a century or more ago, which Mr. Wales draws with great knowledge of their construction, their rigging, and, especially, of their action and movement under various conditions of wind and wave. For all those who are interested in the sea and ships these etchings will have a peculiar attraction, for they are thoroughly nautical in style and sentiment.

The way that a sailing vessel behaves is as characteristic and individual as the gait or carriage of a person, and Mr. Wales has been an ardent and diligent student of the idiosyncrasies of the square-rigger, in fair weather and foul, in harbor and at sea, and he deals with the subject *con amore*. "The Squall," "Light Airs," "The Prize," "Weather," "Head Seas," "Dawn," and as many other examples show his familiarity with the facts and the aspects of the theme to which he devotes himself. Mr. C. Howard Walker says of these prints: "They have a unique quality, as they are not only excellent etchings, with atmosphere and the lilt of the sea, but he knows his sailing ships down to the last block and tackle. So much of would-be representation of ships is to say the least unnautical, but these etchings will fulfil the desires and satisfy the analysis of the 'old salt.' "

Several of the plates are historical, as for instance the "Constitution and Guerriere," (1) the "Susan Drew of Salem," (13), the "Flying Cloud," (2), the "Lagoda" (3), and the "Mayflower" (10).

Mr. Wales was born in Boston, in 1868. He was educated in the public schools and later at the Institute where he studied architecture. For three years he was a draughtsman in the office of Peabody & Stearns; and after a year of travel and study abroad he took up the practice of architecture in this city. At an early age he took to the water, sailing, racing, and cruising in small boats, hanging about the wharves, with a special interest in square-riggers, not then so uncommon as now, studying their rig and handling. He also built a number of models. He took a number of cruises off-shore in the old Boston pilot-boat "Hesper," and has always kept fairly close to the ocean. He has drawn boats and ships incessantly, and about five years ago he began etching these subjects studying the art under William M. Paxton. Mr. Wales lives in Brookline, where he is surrounded by a collection of prints of old ships, models, and books on marine matters.

W. H. D. in *The Transcript*.

THE FACULTY CLUB

THE officers of the Faculty Club desire to bring to the attention of graduates of the Institute the fact that membership in the Club is open to alumni. With the suspension of the activities of the Technology Club there was no opportunity for the Faculty and alumni to get together socially and to consider problems of interest to the Institute. At the suggestion of Professor Tyler a Faculty Club was formed two years ago, and under his guidance it is taking an important place in Institute affairs. The influence of the Club will be markedly broadened if more of the alumni take part in its activities.

A brief statement in regard to some of the past meetings of the Club will indicate the scope and aim of the organization. At one of the earlier meetings some important problems before the Institute were discussed by members of the Executive Committee of the Corporation, the Faculty and alumni. At the first meeting this year and last, members of the Faculty told of their recent experiences in Europe. Professor Sedgwick, after having filled the position of exchange professor at Cambridge and Leeds gave his impressions of university life in England at a special afternoon meeting of the Club to which ladies were invited. A number of illustrated travel talks have been given and meetings have been devoted to the consideration of timely topics such as the housing and fuel problems. President Eliot was the guest of the Club and gave a vivid picture of the more important events in his life.

On account of the general interest in psychological tests as applied to college students the Club invited an expert to describe the application of such tests. A practical demonstration was made by putting the audience through the test; the results were reported at a later meeting. Two very successful ladies' nights were held last year. Members of the Corporation, Faculty and alumni took part in the dancing and bridge whist which followed the reception.

Plans are now being made for the present year. A reception to President Nichols will be held when he takes up his work at the Institute. Arrangements have been made for some illustrated talks on travel, for addresses on live questions of the day, and for two dances, the first of which will be held on November twenty-second.

It is planned to have a number of informal luncheons at which short talks will be given by men invited from outside the Institute. The time given to the luncheons and addresses will be limited to one hour. Professor Doten is in charge of this part of the Club activities.

The monthly meetings of the Club, which are held during the school year, are preceded by an informal dinner in the Walker Memorial. The dues are nominal (\$2). Application for membership should be addressed to the Treasurer, Prof. F. R. Kneeland, Massachusetts Institute of Technology.—JAMES F. NORRIS, *for the Program Committee.*

ON YOUR GUARD AGAINST IMPOSTORS

A graduate's encounter with a pretended Tech man — written for the benefit of other Institute men

"I WAS employed by the Portland Railway Light & Power Company in September, 1919, and placed in the Valuation Department filling the position as Assistant Valuation Engineer since that time. Having passed the professional examination for the Civil Engineer Corps, United States Navy, in October, 1920, and knowing I would be called to active duty soon, I advised my direct superior in January, 1921, to secure additional help in this department. In December, 1920, an article was printed in the *Sunday Oregonian* of December 12, Section 1, page 12, published in Portland, Oregon, describing the escape of an American Engineer who had been imprisoned in the Mexican salt mines for five years as a political prisoner and had managed to make his escape and way across the border into the United States. This man was quoted by a Tacoma, Wash., paper as being a graduate of Massachusetts Institute of Technology, a mining engineer, six years a soldier in the rebel army, and imprisoned five years and eight months in the salt mines of Chihuahua by the Mexican Federals. At his time of supposed capture he was fighting under Madera and Villa being captured by Huerta troops and taken to the headquarters of the American halfbreed, General Hill, in Chihuahua, being imprisoned there.

McGuire came to Portland in the middle of January and through sympathy for his condition, a fanciful tale of suffering and deprivation, so enlisted the backing of influential men of Portland that they vouched for him and he was given employment with a bridge construction gang with the Portland Railway Light and Power Company. Being physically unable to perform his duties and mentally weak due to exposure (so he stated) he had to quit his job. As my superior was looking for a man for temporary work, he decided to try him out in the office, so McGuire came to our department January 26, 1921. I was placed in charge of him and took him at face value as he was endorsed by everyone, and was naturally interested in his stories. This was all very well until he asked for money, which I gave him as a loan. It was then that our employment department warned me of him, that he was spending his time gambling and carousing, so I wrote to Mr. Humphreys at once receiving Mr. Locke's first letter in reply. This I answered and it may be obtained from Mr. Locke. In reply I received Mr. Locke's second letter requesting that I send you the information for publication.

The point I wish to bring out in all this is a warning to all Tech men to be on the lookout for men who claim to be graduates of Colleges and Technical schools whether Massachusetts Institute of Technology or others, especially if they cannot produce the proper credentials. In

this case McGuire told me he was a graduate in 1906 Massachusetts Institute of Technology, Mining Engineering, second in his class. Later I found he had told another man that he was of the Class of 1907 Massachusetts Institute of Technology, Mechanical Engineering, second in his Class, and his application stated his last education was a graduate in Civil Engineering, no school stated.

Our employment man told me after McGuire left that he was in Canada working the same game and that he had heard that political prisoners were not sent to salt mines in Mexico but to an island in the Pacific. I do not know about these facts but I do know that the Massachusetts Institute of Technology allegations were untrue so I discredit the entire story.

Trusting that this information may prove of value in intercepting other such impostors, I remain, Alexander Martin, Jr., VI, '16."

TECH NOW HAS ORDNANCE POST

One hundred students aid Government in preparedness

As a step toward further strengthening the relations between Massachusetts Institute of Technology and the War Department, and to assist in preparedness, students of the Institute formed a Massachusetts Institute of Technology post of the Army Ordnance Association with one hundred charter members. The post will have no assistance financially from the Government, and no official connection with the War Department. Organization was taken at a banquet given by Prof. E. F. Miller last night in the Walker Memorial Building. The establishment of the post is the outcome of the presence at the Institute of the advanced ordnance officers' reserve training corps and the ordnance school of application for officers of the regular army. All men taking this work are eligible to become active members of the post. There is also an associate membership composed of those whom the active members may select.

HAWAII TODAY

What a competent observer saw in our island possessions this
last summer

BY GEORGE H. BARTON, '80

As usual the secretary of '80 has nothing to say about the members of his Class as he never hears from any one of them and very rarely sees one. He did see Miller for a few minutes last spring but learned nothing of interest from or about him. Hence if the Class is to appear in the REVIEW at all the secretary must again fall back upon himself and modestly record his own doings. At present in addition to his regular work as Director of the Teachers' School of Science and personally giving the instruction in the Geological Department of that School he is acting as Lecturer on Geology at Wellesley College three forenoons a week.

During the past summer he made a trip to the Hawaiian Islands in charge of a small summer school party consisting of those who had studied in the above school. The object of the trip was to study the geology of various portions of the United States on the way out and back and of the Islands while there. Brief stops were made in Chicago, St. Paul and Minneapolis, and then five days were spent in Glacier National Park. Here there is an exceptional opportunity to observe various formations, a large over thrust fault, fine erosion features, and many glaciers. Work was hindered slightly by a serious snowstorm on July 2 and by such a depth of snow in Piegan Pass that horses could not go through. Otherwise the stay there was very successful. At Portland, Oregon, we took the now famous Columbia River Highway auto ride which gave us the opportunity of inspecting very many sections of the great lava beds of that region and also seeing the many beautiful waterfalls along the river. We also inspected the salmon fishing and a factory for canning these fish.

In visiting Crater Lake in southern Oregon we had to pass through, on July 8, deep snow banks which rose higher than our heads as we sat in the auto. Here we had the pleasure of seeing this remnant of a volcanic cone whose upper portion of a few thousand feet has sunk into the earth below leaving the lower portion of the cone as a high ring which encloses a sheet of the deepest blue water. Thence we passed on through the long and rather monotonous Klamath Lakes to Klamath Falls and thence to San Francisco, having a fine view of the magnificent volcanic cone of Mount Shasta on the way.

The voyage from San Francisco furnished the roughest weather that the secretary has ever encountered in his several voyages to and from Honolulu. The stay of twenty-three days in the Islands was spent

on the three larger islands, Oahu on which is Honolulu, Maui, and Hawaii. All three give ample opportunity to study the effect of vulcanism, either past or present, and the effects of erosion upon the many volcanic peaks of which all the islands are merely the summits that project above the surface of the Pacific. On Oahu we took the regulation auto ride around a large portion of the island, inspecting on the way the great sugar cane fields and going through one large sugar mill where the whole process of sugar manufacture was shown us and explained; also the large fields of pineapples and being shown through one of the canning factories where we were freely supplied with all that delicious fruit that we could eat. Other features of interest were the rice fields with the water buffalo that are used in preparing the fields, the methods used for threshing grain by horses treading it out in a circular enclosure, and a typical old Hawaiian native who allowed us to take his photograph in his natural costume which consisted of simply a cloth around the loins. This trip took us over the famous 'pali,' around the extreme northeast end of the island, and back to Honolulu over the high plateau that lies between the Pali Range of mountains on the east and the Waianae Range on the west. A second trip was made by rail around the extreme northwest end of the island to Waialua and return by the same route. The railroad for a long distance runs along the steep sides of the Waianae Range with their precipitous sides towering above on one side and the waves dashing against their feet only a few feet below the track on the other.

On the inter-island trip we first landed at Lahaina on Maui whence we were taken by auto, on a beautiful moonlight night, some thirty miles to Wailuku near the center of the island. A part of the way the road reminds one of the beautiful Amalfi drive in Europe, and when seen by moonlight it is exceedingly picturesque. From Wailuku we made the ascent of Haleakala. This mountain rises directly from the ocean to a height of 10,030 feet. In its summit is the largest extinct volcanic crater in the world, over twenty miles in circumference and from 2,500 to 3,000 feet deep. An auto took us to Idlewild where there is a single cottage with several outbuildings and many horses and mules. This is eight miles from the summit. Thence we rode on horse — and mule-back to the summit, arriving just in time to view a most beautiful sunset. On the very edge of the crater is a rest house, of concrete, and in this we spent a very comfortable night. On the following morning we found ourselves looking over an apparently frozen ocean, in reality a wonderful sea of billowy clouds far below us, above which the sun was just appearing, its rays lighting up their higher masses as though reflected from snow-capped mountain peaks. Around us no other land was visible except the mountain tops of west Maui and the summits of Mauna Kea and Mauna Loa across the channel on the island of Hawaii. After a hasty breakfast we roamed around the edge of the crater for a short time and then descended the mountain as we had come up. The next day we visited the picturesque Iao Valley, said by Mark Twain to be the most beautiful valley in the world.

From Wailuku we returned to Lahaina where we took the steamer for Hilo, on the Island of Hawaii, the largest city of the islands after Honolulu. From this place we were at once taken in an auto, over a fair auto road, to the famous active volcano of Kilauea, where we stayed in the Volcano House on the very edge of the crater, but about two miles from its active pit, Halemaumau. During the late afternoon we were taken by auto around the crater to its opposite side and down onto its floor. Leaving the auto we walked to and spent some hours, till after dusk, in watching the tumultuous boiling lava in the pit at a depth of about four hundred and fifty feet below us. All the next day and half of the day following our party was taken in charge by a friend of the secretary and her family who placed two autos at our disposal and drove us over a great deal of the surrounding country and again down into the crater where we were taken through a tunnel a half mile long in the lava forming the floor of the crater, while outside we visited the Koa forest, the tree moulds, and many other points of interest. The secretary had the pleasure of meeting Dr. Jaggar, formerly the head of the Geological Department at the Institute, and now Director of the Observatory at Kilauea, several times while at the volcano. Dr. Jaggar kindly invited the party to visit the Observatory where he explained the work done there and exhibited the various kinds of lava that occur at Kilauea and Mauna Loa. Returning to Hilo another friend took us in charge and with two autos drove us over much of the surrounding country. While there we also took a ride on the Hilo Railroad along the coast northward for a distance of nearly forty miles during which we crossed, on steel arches, very many deep gulches some of which are over a thousand feet deep. Throughout this trip we were constantly passing through immense cane-fields now covering the country where in 1883 the secretary rode on horse-back through a wild country, with here and there a small plantation, and over very poor bridle trails where now are fine auto roads. From Hilo we returned directly to Honolulu where we were entertained by many friends of the secretary and then returned to San Francisco, having fair weather most of the way.

At San Francisco we visited the important features of the city and nearby country, then made a brief stop at the Big Trees, spent two nights at Santa Cruz and then three nights at Los Angeles. Here other friends with autos drove us to the beach, to Pasadena, Riverside, and many other places. Following this we spent two days at the Grand Canyon of the Colorado inspecting the canyon in both directions from the El Tovar Hotel. Our next stopping place was Adamana in Arizona whence we visited parts of the famous petrified forest but owing to the recent floods we could not reach all the points of interest. At Colorado Springs we visited the Garden of the Gods, the Cave of the Winds, Cheyenne Canyon, and ascended by auto to the summit of Pike's Peak. At Denver we crossed the plains to the foot of the Rockies, crossed over a portion of them, stopping at the grave of Buffalo Bill, then down through an extremely picturesque canyon for several miles, following the banks

of a rushing torrent, which was so laden with sediment as to look like a mass of rolling thick molasses in some places and in others like a river of very wet sand, the tumultuous waves of which at once remind one of the whirlpool rapids in the Niagara Gorge.

From Denver we had a pleasant journey home, arriving in Boston on September 2, excepting on this latter date, we encountered, on the trip from Albany to Boston, and the following day in Boston, a greater heat than we had met with at any place on our entire trip.

TECH LEADS IN AERONAUTICS

New wind tunnel second largest in United States

WITH the addition of a district course in aeronautical engineering and the pending extensions to its aeronautical laboratories, the Massachusetts Institute of Technology bids fair to take the lead as the foremost institution in the world for the training of aeronautical engineers. A new wind tunnel now in the process of construction when completed will be the second largest of its kind in the United States, and the fourth largest in the world. A wind tunnel, with its accessory mechanism, is the apparatus that is used for predetermining the performance of an airplane. A small model of the plane is made and it is tested for all the stresses encountered in practice by placing it in the wind tunnel and sending a current of air through with a speed of forty miles an hour or above, so that actual working conditions may be duplicated.

The large wind tunnel that is being constructed at Tech now will be eighty-one feet long with a diameter of seven and a half feet. The propeller used for setting up the air current will be fourteen feet in diameter, and will be driven by a one hundred horse-power motor. The exceptionally high speed of eighty miles per hour will be attained with this propeller. The models which are to be tested in this tunnel will have a length of three feet and will be attached to the so-called balance placed outside the tunnel. As the wind strikes the wings of the model it sets up forces which are studied by use of the balance. These forces are exactly analogous, although on a smaller scale, to the forces the plane will meet in actual flight. Thus if any defect in the design of the plane is manifested it will be discovered and eradicated while the model is tested so that serious breakdown in flight may be avoided.

CRAVEN, '98, PRESIDENT OF MONTANA SCHOOL OF MINES

Succeeds C. H. Clapp, '95, in that position—a long and distinguished mining service as mining engineer

GEORGE WARREN CRAVEN, '98, was elected president of the Montana School of Mines by the State Board of Education in July. He succeeds Dr. C. H. Clapp, '95. President Craven, who was born in Helena in 1871, is the first native of Montana to head one of its higher educational institutions.

He graduated from high school in 1892 and at once went to Boston, where at the Chauncey Hall School he finished his preparatory course for the Massachusetts Institute of Technology.

The five-year course in electricity at Tech looked attractive to him and that was completed, along with additional work in mechanical engineering on the side, in time for him to graduate with the bachelor of science degree in 1898. While at Tech he did much private tutoring. His summer vacations he spent with the New York, New Haven & Hartford Railroad, working the first in the boiler shops, the second and third as a locomotive fireman, and the fourth at construction work, electrifying the road from Braintree to Nantasket, the third rail system being used. He was employed for the electrical work by Charles Schlectiger, the General Electric Company's expert engineer. The foreman was Robert Wade, well known in Montana because of his construction work on the B., A. & P. and the Milwaukee Railroad.

At this time the Highland Boy Gold Mining Company was building its smelter at Murray, Utah, and Mr. Craven was engaged a year on this work. Then he came to Butte, where for three and a half years he was mechanical draughtsman and assistant engineer for the Boston & Montana Copper and Silver Mining Company, since merged with the Anaconda Copper Mining Company properties. His work was so good that for the next two years he was placed in charge of all construction work done for the company and of all machinery owned by it. While with the Boston & Montana Company, Mr. Craven made all the drawings for the 6,000,000 gallon pumping plant for the Butte Water Company on the Big Hole River.

One year was spent as engineer for the Butte Electric and Power Company, now a part of the Montana Power Company, during which time No. 2 Hydro-Electric Plant on the Madison River was constructed, and the Livingston and Billings plants were enlarged and reconstructed.

In 1905 President N. R. Leonard of the School of Mines persuaded Mr. Craven to accept the position of professor of mechanics at his institution, a position he had held for the sixteen years since that time.

In addition to his work there he has been a consulting engineer for the Montana Power Company and for S. P. Wright, local representative of the Allis-Chalmers Machinery Company, and in addition has done much other consultation work. This has kept him closely in touch with practically every big engineering project undertaken in Montana, and to a less extent in other western states during the past sixteen years. He was engineer for Max Hebgen on the Hebgen Reservoir on the upper Madison River, the seventh largest reservoir in the world; on the Mesa project on the Snake River in Idaho, and on the dams, power houses and equipment for the Thompson Falls plant on the Clark's Fork, and for the Holter, Rainbow Falls and Volta plants on the Missouri River. At different times he has planned or made recommendations for irrigation systems, pumping plants, lighting systems, concrete plants and bridges of various kinds. Also he has been closely in touch with the electrification construction on the Milwaukee and the B., A & P. Railway. The wide range of his experience along engineering lines and his acquaintance with technical men have made him unusually effective as a professor in an engineering school and will be invaluable to him as its president.

As a classroom instructor Professor Craven has been especially strong. His thorough knowledge of his work, his ability to get work from his students, and a ready fund of humor and illustrative stories have made him very popular with the men at the school of mines. His appointment as president will meet with strong approval from the alumni, the student body and the other men of the Faculty.

FRENCH ARCHITECT MAKES PLANS FOR EASTMAN COURT

† M. JACQUES GREBER, the French architect who won the competition for the conversion of the fortifications of Paris into housing space, is a visitor at the Massachusetts Institute of Technology for the purpose of studying the dormitories of the Institute in connection with the mission on which the French government sent him to America. He is also engaged, in connection with Welles Bosworth, the architect of Technology with whom he studied in the same atelier in Paris, in drawing up a plan for the architectural treatment of Eastman Court, the large space immediately in front of the main entrance to the Institute, which is flanked on one side by du Pont Court and on the other by Lowell Court. This plan Mr. Bosworth hopes to be able to present to the Corporation before long.

IN THE PUBLIC EYE

EDWARD STUART, '10, for several years associated with the operations of the American Red Cross in Europe, has been appointed Director of Disaster Relief Service, at National Headquarters, and has entered upon his new duties.

Mr. Stuart was graduated from the Massachusetts Institute of Technology in 1910. He entered upon his first service in the Red Cross in 1915, serving as sanitary engineer with the mission combating typhus epidemic in Serbia. He assumed full charge of the commission upon the departure of Dr. Richard P. Strong, serving in this capacity until the defeat of the Serbian Army. In 1916-17 he was in charge of American Red Cross relief operations in the Balkans, conducting negotiations with the Central Powers and organizing relief work in the occupied Serbian territory.

From January to June, 1918, Mr. Stuart was a member of the American Red Cross expedition engaged in disaster relief work in Guatemala. He was commissioned Captain, Sanitary Corps, United States Army, in July, 1918, and was sent by the General Staff on a special mission to the Macedonian front as sanitary advisor to the Serbian Army and Government. In February, 1919, he was promoted to the rank of Major.

Mr. Stuart, from June, 1919, to August, 1920, had charge of Health Educational Work of the Rockefeller Foundation Commission for the Prevention of Tuberculosis in France. From August, 1920, to September, 1921, in addition to his duties with the Rockefeller Foundation Commission, he acted as chief of the Division of Public Health Instruction of the League of Red Cross Societies, Geneva, Switzerland.— *Red Cross Bulletin*.

T. COLEMAN DU PONT, '84, has recently come to the position of being Vincent Astor's rival for first place as a realty owner. Recent additions have swelled his property until, with Astor and the Duke of Westminster, he is one of the three premier investors in dirt in all the world.

His holdings range from the major portion of the Equitable Building to a vacant lot. Hotels and a few hovels are numbered among his possessions.

Mr. du Pont is a native of Louisville, Ky. He was born December 11, 1863. His first bent was for engineering and mining. Following his graduation from the Massachusetts Institute of Technology, he engaged in a number of mining ventures. From 1902 to 1915 he was president of the E. I. du Pont de Nemours Powder Company, and he is an officer or director in a long list of corporations.

His fight for premier place in the New York realty field is only a few

years old. Like his fellow landlord across the water, Mr. du Pont leans toward the Church of England as a means of getting a line of doing unto tenants as one would have them do unto himself. The system apparently works, for he is not involved in the big list of fights that now clog the courts.— *New York Daily News*.

DR. ARTHUR DAVIS DEAN, '95, recently chosen by the Government as school superintendent of all America's war disabled, is himself a veteran of the World War as well as an educator of wide experience and a specialist in vocational training.

During the war, Dr. Dean, a major in the sanitary corps, worked on the physical and mental rehabilitation of the sick and wounded as they were returned to the United States in almost all the large government hospitals of the country. With nine years' experience in vocational education work in New York State, he served as head of the division of vocational schools in the state department of education from 1908 to 1917, when he became professor of vocational education in Teachers' College, Columbia University. He directed the New York state prison survey in 1919 and investigated the possibilities of industrial and agricultural education in Porto Rico for the insular government.

Dr. Dean was born September 15, 1872, at Cambridge, Mass., and was educated at the Massachusetts Institute of Technology. He is a member of Columbia University post of the American Legion.— *LaCross, Kansas Republican*.

BOOK REVIEWS

WITHIN THE ATOM: BY JOHN MILLS, '09, Van Nostrand, N. Y.
Reviewed by Prof. Vannevar Bush, Department of Electrical Engineering.

If our old standby, the "General Reader" wants to get a clear idea of how this universe is put together, now is the time to start. Every day that he delays, the known structure of matter becomes a little more complex and the job of grasping it more of a mental feat.

It requires courage to attempt in a short volume to initiate the novice into the mysteries of electrons and atomic numbers and quanta. The ceremony cannot be complete unless the neophyte does his part in the way of close attention.

"Within the Atom" is not a book to be read offhand. There have been some expositions of this sort which have been designed simply to awe-inspire or amuse. Mills goes deeper and really gives a serious concept of the present status of physical science as concerned with atomic structure. The treatment, nevertheless, is brief, readable and without mathematics or symbols.

"The reader need have no previous knowledge of electricity, mechanics or chemistry." The modern scientific mind is modest, and expects much. If you haven't seen your old physics text-books lately, it will be a good idea to get them out before you start. Notice also that there is a glossary in the back of the book. Then if you really are a general reader, you will find the book worthy of your serious attention.

For the student in other lines who is more or less familiar already with the subject matter, it will be found to be a delightful summary of just where the physicist has now arrived in his analysis of atomic structure.

WATER RESOURCES: PRESENT AND FUTURE USES. BY FREDERICK HAYNES NEWELL, '84. Yale University Press.

It is really too bad from the point of view of the plain citizen that Professor Newell's book which disposes of legal and legislative problems in a few pages, does not go fully into the history and public policies of irrigation and water storage. He knows so much about the inside and outside of water politics that he should be compelled by a statute or writ of mandamus to tell his story; but, of course, it is wrong to quarrel with him. He has seen fit to limit himself to the economic and technical side of water storage, management, and uses. His volume will be gratefully received by those legislative and administrative authorities that are seeking a broad view of the subject as well as by young engineers who may have occasion to wrestle with the larger

aspects of water problems. Those citizens who have long known their obligation to Mr. Newell for his devoted public services will feel their debt doubled as they read this remarkable survey of our water resources and uses. One would like to think of this book among the required readings in a course on economics. That would be one way of encouraging laymen to support the efforts of the scientific men who desire to see the utilization of "the natural resources of the country for the common welfare" — a hope expressed by Mr. Newell in his introduction.

CHARLES A. BEARD in *The Nation*.

MISCELLANEOUS CLIPPINGS

TECH'S BIG ENROLMENT

MASSACHUSETTS Tech opens the year with an enrolment of 3520, the largest in its history, and with more planning to enter between now and New Year's. Included in this total are sixty women. The new students number 1200. When one considers that the registration has more than doubled since 1917, one appreciates how phenomenal the growth of the Institute has been since it was established at its new location, and how the authorities are sorely perplexed to take care of a number twice as great as the facilities were planned to accommodate. Such an attendance constitutes a splendid testimonial to the value of the Institute's work and contributions to the progress of State and Nation, and an expression of full confidence in the leadership of President Ernest Fox Nichols, recently made its executive head. Massachusetts has every reason to feel proud of the great organization built up at Massachusetts Institute of Technology, and will rejoice at the proofs that the Institute was never more thoroughly alive.—*Springfield Union*.

READY TO MOBILIZE

THE same readiness to jump into the emergency with all the energy and brains the American people possess, which was so conspicuously displayed during the war, has again shown itself in the railroad crisis.

Among the offers of assistance in the work of mobilizing to maintain transportation, none is more significant than that of the Massachusetts Institute of Technology, which announced a day or two ago that it had prepared tentative plans for rapidly organizing a body of men competent to take out locomotives and to operate trains. The plan, we suppose, is to furnish intensive training to Technology students and others who have already acquired familiarity with stationary or marine engines or in other ways are partially equipped for railroad service.

The assistance thus volunteered in the public's behalf may not be needed. But the old spirit of co-operation which the war brought out is again in evidence. May it always be on call when needed!—*Boston Traveler*.

PRASEWORTHY BEQUESTS

A GIFT of \$1,000,000 to Massachusetts Institute of Technology and of \$500,000 to Wellesley College constitute the most notable of numerous bequests for public objects by Francis Appleton Foster, wealthy cotton manufacturer, who died in Weston recently. Col. Samuel P. Colt of Rhode Island has left \$10,000 to Tech, and \$50,000 to Brown University; and his will contains a great many other bequests to public institutions of various kinds. Coming from men identified

with industrial pursuits and familiar with the work that this great organization is doing for the advancement of manufacturing and technical pursuits, these gifts to Tech speak loudly in its behalf. These and other sums given of late to swell the foundation of this great institution on the Charles River are going to be a power for the development of industrial strength in the period that lies ahead of us.

Every week or two sees some notable instance of wealth left by a New England man or woman for educational or other public purposes. This is the kind of public spirit that lends greatness to a commonwealth. The significance of such gifts lies not so much in the things that they will accomplish as in the impulse that is back of them. Our enterprises and the agencies that furnish them support will not fail so long as this ardent "carry on" spirit prevails.—*Springfield Union*.

A FAIR EXCHANGE

It is significant of the increasing world-wide interest in every phase of higher education that the exchange professorships hitherto confined to the realm of arts and letters, are now to be extended to the fields of science and engineering. The new agreement will send to Europe Prof. A. E. Kennelly, one of Technology's most distinguished teachers, and bring to this country Prof. J. Cavalier, rector of the University of Toulouse and recognized the continent over as a metallurgical chemist of the highest standing. In order that the educational influence of the noted French savant may be as wide as possible, it has been arranged that he shall share his time with seven of America's representative technical schools. He will spend a month each at Tech, Harvard, Yale, Cornell, Columbia, Johns Hopkins and the University of Pennsylvania.

But this exchange scheme has even larger possibilities. As it was formulated some years ago by Dr. R. C. Maclaurin, late president of the Institute of Technology, it comprehended the exchange of students as well as the exchange of teachers. For the moment no attempt is being made to offer special inducement to American students of engineering to secure their advanced training abroad or to encourage European students to come here, but that development of the plan is bound to come in the early future.

Meanwhile the United States eagerly awaits the arrival of the French scientist. It will accord him the warm welcome it customarily extends to the representatives of a friendly and allied nation; it will listen with interest to the message he brings.—*Boston Transcript*.

A COURSE IN FISHERIES

THE institution of a course in fisheries at the Massachusetts Institute of Technology, to become effective at the beginning of the next college year, is a welcome departure; especially from our Bay State viewpoint, since it is calculated to conserve and foster an industry that has long taken high rank among the economic interests of the Commonwealth. With Federal and State co-operation assured, this

course should prove of large public value. The effect should be to put our fisheries on a higher plane, scientifically regarded, and to stimulate industrial and public service reforms to the end of securing those conditions that will render our waters a favorable base for the multiplication of fish, lobsters and clams, as in times past.

All along the coast of Southern New England complaint is voiced that our fisheries do not receive deserved consideration, and that the pollution of waters in certain areas threatens permanent destruction of some of the best breeding beds and fishing zones. The proposed Institute course ought to become a valuable force for the restoration of the industry to the state of health that will assure renewed and continued prosperity. In this connection the *New Bedford Standard* proposes that the island of Penikese, recently abandoned as a leprosarium, be utilized as a summer laboratory and observation station for the school, it being situated in the midst of a lobster-catching district. This suggestion deserves respectful consideration on the part of Tech authorities and the Commonwealth.—*Springfield Union*.

FISHERIES AND FOOD

It is intimated that the course in fisheries engineering at Massachusetts Tech may well expand into a course of food engineering, for the preparation and conservation of food under modern conditions is a highly technical matter, and should by all means receive all of the help which modern science can give. There are problems of transportation, manufacture, preservation to meet special conditions and distribution, which are outside of the experience of men who are fully capable of handling other mercantile and production problems, for food has unique characteristics. The primary one is that it eventually is eaten by the human race, and those who handle it must employ every possible precaution to keep it wholesome. Furthermore, they must be alert to devise means of supplying it to the public in such form as to retain the greatest possible amount of the food value which the raw materials originally possessed. Certainly, food engineering, whether it is called by that name or not, is one of the needs of the present industrial age.—*Baltimore Sun*.

OUR ILLUMINATION

ILLUMINATION of urban statuary so that it shall be as effective by night as it ever is by day has been tried in many places with good results, notably in the case of the Pilgrim Memorial monument in Plymouth, Massachusetts, and that of the statues in Lincoln Park, Chicago. The lamps are concealed in such a manner as to light the statues from below, so that the illuminated figures stand out boldly against the surrounding darkness. Perhaps the time is coming when architectural effects, similarly, will be brought into view at night. Something of what might be achieved in this direction is suggested by the present method of illuminating the dome of the library of the Massachusetts Institute of Technology, on the Cambridge side of the Charles

River at Boston. Concealed lamps throw just enough light upon this feature of the building to give it a soft radiance, in which, however, it is always a prominent feature of the Cambridge side of the river, as seen from the Boston shore. One wonders why the whole Technology facade is not similarly brought into view.—*Christian Science Monitor*.

HONOR FAMOUS MEN

ON account of their earnest fidelity toward the Institute as well as their enthusiastic interest in her welfare, the names of famous men are found inscribed upon the Institute dormitories and on the walls of the buildings.

Prof. John Daniel Runkle, whose name so honors one of the dormitories, was responsible for a good deal of the progress which the Institute made in the establishment of laboratories, and was associated with William Burton Rogers in the plans for founding the Institute.

With the resignation of President Rogers in May, 1870, due to illness, came the appointment of Professor Runkle as the former's successor, influenced by the resigning president's recommendations. With the installation of President Runkle, mining engineering and metallurgical laboratories were established, professional summer schools were developed in the field; women were formally admitted as students, shop instruction was introduced and a School in Mechanic Arts was founded; the summer camp of Technology students was held on the grounds of the Centennial Exhibition at Philadelphia; and the establishment of engineering laboratories was begun. Professor Runkle held the presidency of Technology from 1870 to 1878, when President Rogers resumed the guidance of the Institute until his death in 1882.

To Professor Runkle more than any one else is due the development of the manual training and shop work of the Institute's engineering courses. Despite the recognition of Professor Runkle as a mathematician of the highest rank, he contended that the important part of mathematical teaching was instruction of the rudimentary work.

The following appreciation of Professor Runkle, from the TECHNOLOGY REVIEW of 1902, indicates the esteem and love in which he was held by his students. "His students have been his lifelong friends, and some have had the good fortune to renew the friendship through their sons." — *The Tech*.

NEWS OF ALUMNI ASSOCIATIONS

CHICAGO — TECHNOLOGY CLUB OF CHICAGO.— As mentioned in the July REVIEW, the Technology Club of Chicago held its summer outing at the Patten Gymnasium, Northwestern University, Evanston, Ill., on June 18. The total attendance was slightly over sixty, although only fifty-nine men were able to stay for supper, which was served by a caterer in the trophy room of the gymnasium.

Festivities began about three o'clock in the afternoon and for the next three hours two games of indoor baseball were played continuously on diamonds laid out on the campus near the gymnasium. About five o'clock a number of the men went swimming in the lake and had a tilting contest in Lake Michigan. The honors seemed to be about evenly divided between John Frank and O. W. Fick. As the lake was still rather cold, most every one went swimming in the big tank in the gymnasium which was much appreciated by every one present. Unfortunately, due to a heavy rain that noon, it was impossible to stage the tennis tournament that had been planned and twenty or thirty men were deterred from coming out. However, the weather cleared up early in the afternoon and it was a splendid day and every one seemed to have a good time at the outing.

Our two-hundred-pound heavy-weight champion, Harvey S. Pardee, challenged all comers to put on the gloves with him for three rounds, but after the ball game and swimming, no one seemed to have enough energy to take him up. Ice cream cones and near beer were served all afternoon by the bartenders, Fred Loweth and Bob Weeks. The dinner was arranged by H. W. Kern, who more than maintained his reputation of being the best-fed man in the Club.

On Saturday, July 16, the Engineering Alumni of Michigan, Illinois, Purdue and Tech held a joint outing at the Patten Gymnasium, Northwestern University, Evanston, Ill. This joint outing was suggested and decided upon after our plans for a Tech outing on June 18 were well advanced and, therefore, it was decided to have the two outings this summer.

A total of eighty men attended from the four institutions, Tech's representation of twenty-six men being the largest of any. Two games of indoor baseball were in progress continuously during the afternoon, both teams representing the different schools, but it was impossible to decide which school turned out the best engineers, because in one game a team composed of Tech and Michigan men won from a team composed of Purdue and Illinois men, while in another game the reverse was true.

A picnic supper was served by a caterer on the bluff overlooking Lake Michigan with a liberal supply of ice cream cones for dessert. After supper there was a long session of community singing lead by

R. D. Flood, leader of the famous Flood Band of Tech. At the close of the festivities, an embryonic auctioneer auctioned off the tennis balls, indoor baseballs and indoor bats that had been provided by the committee. He performed his job so well that the salvage of this equipment was nearly equal to its original cost.

Since April 26, the beginning of our fiscal year, ninety-nine different Tech men have attended our weekly lunches at the Engineers' Club, while an additional twenty men have attended our outings. Thus a total of one hundred and nineteen different Tech men have attended Tech parties in Chicago in the last five months. The following men are on our roll of honor, because they have attended at least five lunches in that period:

R. A. Allton, '13; J. C. Bollenbacher, '09; H. C. Blake, '06; N. E. Baxter, '14; H. H. Bentley, '08; L. C. Clarke, Jr., '04; W. F. Dolke, '08; J. M. Fitzgerald, '02; R. D. Flood, '96; J. M. Frank, '07; C. W. Hawes, '17; J. C. Irwin, Jr., '18; G. B. Jones, '05; L. S. Keith, '00; H. W. Kern, '90; F. C. Loweth, '12; J. M. McCausland, '18; J. O. Merrill, '19; H. M. Montgomery, '79; C. B. Page, '99; G. P. Palmer, '04; H. S. Pardee, '09; R. M. Phinney, '04; J. B. Sansberry, '19; F. B. Schmidt, '08; Howell Taylor, '14; D. A. Tomlinson, '12; R. W. Weeks, '13; G. T. Wooley, Jr., '14.

There are twenty-nine names in the list; count 'em. Considering that the last five months have included the vacation season, we think that is a pretty good record. In the next few months we hope it will be better. The attendance at the weekly lunches has averaged seventeen. The highest was thirty-two, the day Prof. A. T. Robinson was here — tell him to come again.

At our luncheon two weeks ago it was unanimously voted to have the Technology Musical Clubs give a concert here on Friday evening, December 30, and we have reserved the ballroom of the Blackstone Hotel for the evening with the idea of having a dance afterwards. In times past it has been customary for ten or fifteen of the older alumni to underwrite such an event to the extent of fifty dollars or one hundred dollars apiece. Taking our cue from the Chicago Opera Association which is now trying to get five hundred guarantors in place of the lone contributor of the last ten years (Harold McCormick) or in their language "trying to sell opera to the telephone directory," we are trying to get fifty men to underwrite this proposed concert to the extent of ten dollars apiece. The committee is making splendid progress and we feel that the subscription books will be over-subscribed very soon. The following committee has been appointed to secure subscriptions for this guarantee fund: H. W. Kern, '90, chairman; Lonsdale Green, '87; H. C. Blake, '06; R. W. Weeks, '13; N. E. Baxter, '14.

The Musical Clubs Concert Guarantee Fund Committee, believing that "1921 is rewarding fighters," has made splendid progress, and the fund is already oversubscribed. Their goal was fifty subscriptions of ten dollars each, and sixty-two subscriptions have been received. The following is an alphabetical list of the subscribers:

W. A. Allbright, '78	Sam Greeley, '06	Langdon Pearse, '01
R. A. Allton, '13	Lonsdale Green, '06	C. W. Pen Dell, '98
Julius Alsberg, '02	W. D. Hale, '16	D. H. Perkins, '88
S. Y. Ball, '03	G. B. Harrington, '04	G. W. Pollock, '21
J. I. Banash, '06	J. Harrington, '96	J. H. Pratt, '12
N. E. Baxter, '14	J. L. Hecht, '04	J. G. Reid, '08
H. C. Blake, '06	E. R. Heissler, '97	T. W. Robinson, '84
H. L. Brand, '01	F. B. Hunt, '20	C. L. Rodgers, Jr., '05
E. Burnham, '02	G. B. Jones, '05	E. L. Ryerson, Jr., '09
H. K. Chapin, '04	E. O. Jordan, '88	H. J. Schlacks, '92
F. D. Chase, '01	H. W. Kern, '90	R. G. Schmidt, '87
A. A. Clement, '94	K. T. King, '15	J. L. Shortall, '87
F. K. Copeland, '76	M. B. Knox, '20	Benton Sturges, '90
E. G. Cowdery, '77	W. T. Leman, '73	Solomon Sturges, '87
W. W. DeBerard, '01	C. M. Leonard, '00	M. J. Sturm, '92
S. M. Felton, '73	J. W. McCausland, '18	E. W. Sturtevant, '02
L. A. Ferguson, '88	Phillip Moore, '01	Howell Taylor, '14
J. M. Fitzgerald, '02	W. A. Nelson, '05	D. A. Tomlinson, '12
R. D. Flood, '96	H. L. Newhouse, '94	C. E. Warren, '06
L. S. Florsheim, '01	F. R. Nichols, '88	A. W. Woodman, '90
J. M. Frank, '07	G. P. Palmer, '04	J. R. Poteat, '18
F. E. Goodnow, '07	H. S. Pardee, '09	

With that number of subscribers the success of the concert is assured and we are planning definitely to have the Musical Clubs here on Friday, December 30. The above men have subscribed ten dollars each, payable November 1, the subscriptions not applying to ticket sales, and being only to care for any possible deficit. After the concert, part, and we hope all, of this fund will be returned pro rata.

Complying with a recent circular request for more items for the REVIEW before October 15, the twelve men present at the Tech lunch at the Engineers' Club, October 12, formed a committee on public information, and the following is the result of their joint efforts. That long preamble is necessary because Major Montgomery, '79, was very much afraid that the secretary might claim credit for all the items, and so I want to assure you that the twelve apostles of Tech who lunched together today, and not the secretary, are responsible for the choice bits of gossip and slander that follow.

The concensus of opinion seemed to be that business in Chicago is picking up. Henry Kern, '90, sold a lot on the pay-as-you-can plan yesterday, and got \$1.50 down. J. C. Bollenbacher, '09, says that his firm got a commission last month to draw plans for a tasty cottage for a plumber. R. D. Flood, '96, sold some yarns Saturday; Sam Felton's railroad hauled two tons more yesterday than a week ago. J. W. McCausland, '18, swears that he has paid his June rent. G. W. Pollock, '21, says his salary has not yet been cut. These are all straws that show the way business is improving, and it was thought they ought to be called to the attention of Roger Babson, whose charts seem to rival

the REVIEW in popularity among Tech men, so that he will be able to forecast business tendencies in the Middle West to better advantage.

George Bayard Jones, '05, has just returned from a trip to Atlantic City, where he says the water's fine. Apparently he wasn't able to get any water in some other cities, and not only had to go without a bath, but had to lubricate his inwards with other liquids. He returned via Philadelphia, and after crossing from Camden on a ferry boat he walked up Market Street a la Ben Franklin, with his eyes out to observe the beauties and scenery of the city. As he says he had just been reading Ben's autobiography, we presume that he doubtless carried a loaf of bread under each arm. Those sinful places on the Atlantic Seaboard seem to have a dreadful effect on the young men from the Middle West.

J. W. McCausland, '18, who has been learning to navigate Lake Michigan this summer, had a narrow escape in a storm the other day when he was helping to lay up the boat for the winter in the harbor at South Chicago, but he insists that the reports of his drowning off the Chicago Beach Hotel are absolutely unfounded.

Miss Dorothy Flood, daughter of Samuel D. Flood, '90, was married recently to Mr. Robert Gardner. As weddings come high nowadays, and as it has to be a real wedding to get a column in the society page of the Chicago *Tribune*, we can understand why Sam has not been able to come around to lunch lately.

In conclusion, Mr. Editor, the twelve apostles mentioned above have a final question to ask you, which from the wisdom accumulated at Technology, you will undoubtedly be able to answer. Why don't some of the old standard bearers of the Technology Club of Chicago come to lunch more often? Particular inquiry is made regarding F. K. Copeland, '76; Samuel Dauchy, '88; Charles S. Frost, '79; Dean Hinman, '00; Kenneth Lockett, '02; William H. Merrill, '89; Phillip Moore, '01; C. W. PenDell, '98; G. M. Proudfoot, '04; R. E. Schmidt, '87; Howard Shaw, '93; and Meyer J. Sturm, '96.

This morning's *Tribune* carries an announcement of the engagement of Miss Helen Johnson, daughter of Mr. and Mrs. A. J. Johnson of 327 South East Avenue, Oak Park, to Merrill B. Knox, '21, 227 North Central Avenue, Austin. Congratulations, Merrill, come to lunch next week and tell us how you did it.—D. A. Tomlinson, Secretary, 111 West Washington Street, Room 1537, Chicago, Ill.

CHINA — TECHNOLOGY CLUB OF CHINA.—“Happy” Adams, '08, resigned as secretary of the Technology Club of Shanghai and the undersigned was elected in his place. The secretaryship of the American Club is a pretty big job and takes all of Happy's spare time.

The monthly luncheon time was changed to the first Tuesday of every month at the Carlton Cafe at 12.15 p.m. All wandering Tech men passing through Shanghai are invited. Everybody in this country seems to be traveling half the time, so we have an assistant secretary-treasurer, V. Fong Lam, to keep things moving all the time. F. W.

McIntyre is still president of the Club and you should see him preside at Chinese chow.

To prove that we have a really live organization here, I may mention that the Club has voted an annual contribution to the endowment fund. We did not stop there either, but have collected the funds and expect to send a draft before the end of the year.

Maloy from Technology and Harvard came through here filled to the brim with news and plans of the Technology (and Harvard) to be in China. The Harvard alumni here in Shanghai are not at all active, but the Tech Club has collected a lot of information and will be ready shortly with some definite recommendations. The plan concerns the erection of a college in China, giving an engineering education for those Chinese who find it not practicable to go to the United States, or furnishing a better preparation for those who will go to M. I. T. later on.—*N. T. Catlin, Secretary, care Standard Oil Company of New York, Shanghai, China.*

CLEVELAND — TECHNOLOGY CLUB OF NORTHERN OHIO.— Since the last number of the REVIEW there have been no large meetings of the Northern Ohio crowd, but regular informal Friday noon luncheons in the Statler grill room have been kept up in a small way. They are becoming better attended with the fall season. Any Tech man transient in Cleveland should make his presence known there.

Dean Burton passed through Cleveland July 2, *en route* to California and as many men as could be reached on short notice gathered at the University Club for a farewell luncheon in his honor. At this gathering the Dean was presented with a scroll bearing personal messages of appreciation and Godspeed from a large number of the local alumni. The completed scroll when unrolled measured several yards in length with closely written messages in indelible ink on prepared linen and was suitably mounted as a permanent souvenir of the occasion. After the presentation the Dean talked about recent happenings at the Institute, the working out of the Technology Plan and answered questions on general subjects of Technology's growth.

An up-to-date address book for members of the Technology Club of Northern Ohio has recently been received from the printers. Extra copies have been provided for the use of the other alumni bodies and any others whom it may interest.—*A. A. Gould, Secretary, University Club, Cleveland, Ohio.*

HARTFORD — TECHNOLOGY CLUB OF HARTFORD.— The Technology Club of Hartford will resume its luncheons, Thursday, October 27 and hold same on the second and fourth Tuesday of each month until the annual summer outing in June. We generally have several dinners during the winter followed by a bowling match or some other form of entertainment. We are looking forward to a very pleasant and instructive winter.—*George W. Baker, Secretary, Box 983, Hartford, Conn.*

INDIANAPOLIS — INDIANA ASSOCIATION M. I. T.—The president of the Indiana Association is Alex R. Holliday, 825 Lemcke Building. MEETINGS: Third Friday of the month, 6.30 p.m. at the University Club. The Indiana Tech men have been unusually fortunate in that two men actively connected with the Institute visited us recently. Prof. A. T. Robinson was in Indianapolis the latter part of the summer recess and Dr. Charles E. Ruby of the Research Laboratory of Physical Chemistry spent an evening with us September 20. Few of our members find occasion for frequent trips to the Institute and all are eager to learn the late news and gossip of Tech. It is our desire that all Tech men who are in this vicinity will make every endeavor to meet with us.—*Frank C. Balke, Secretary, 427 West Market Street, Indianapolis, Ind.*

NEW BEDFORD — TECHNOLOGY CLUB OF NEW BEDFORD.—The annual clambake of the Technology Club of New Bedford was held on Saturday, September 24, on the shores of beautiful Mary's Pond at Chester Vose's summer place. Twenty-five members, old and young, enjoyed the clambake, golf, baseball and other sports on the shores of Mary's Pond.—*Charles F. Wing, Jr., Secretary, 790 Purchase Street, New Bedford, Mass.*

NEW HAVEN — NEW HAVEN COUNTY TECHNOLOGY CLUB.—The following resolutions were passed by the New Haven Technology regarding the death of *Irving M. Guilford, '08*.

"Be it resolved: That the New Haven County Technology Club deeply regrets the loss of their esteemed and loyal associate, Irving M. Guilford, '08, who died August 29, 1921 as the result of a sudden illness.

Be it further resolved: That the New Haven County Technology Club desires to express its sincere sympathy to his wife, children and his mother in their sad bereavement.

Be it further resolved: That a copy of these resolutions be sent to the Secretary of the Technology Alumni Association, and to the family of the deceased."—*R. L. Parsell, Secretary, 235 Part Street, New Haven, Conn.*

NEW YORK — TECHNOLOGY CLUB OF NEW YORK.—From what little we gather of the doings of the committee of twenty-five, we are led to believe that through their sub-committees they are studying the condition of the Club both past and present with a great deal of detail and thoroughness. Nothing has come from them as yet on their findings, and it is only by the regularity of their meetings and a word dropped here and there that Club members are aware of what is going on. We do know that a comprehensive questionnaire was sent out to some three thousand Tech men a short time ago, requesting the preference of members as to location of the Club and other indications of members' desires. We understand the entire findings of the committee are to be made known sometime during the early winter.

17 Gramercy Park is undergoing changes at the moment which will tend to increase the attractiveness and usefulness of the club house very materially. The first floor is in the process of redecoration, and steps are being taken to utilize a portion of the basement. It will be of great interest to Technology men in general, and Club members in particular, to know that arrangements have been made to reinstate the restaurant through a very advantageous arrangement with the restaurant next door. An opening is being cut in the wall of the basement and in this way meals will be served in our own Club from the restaurant. The Club hopes that the new restaurant service will prove very acceptable, and that members will accord it steady patronage.

The program for the year's entertainments has not been announced, although President Brophy, who is also Chairman of the Entertainment Committee, promises news shortly.—*E. P. Brooks, Secretary, 17 Gramercy Park, New York, N. Y.*

NIAGARA FALLS — NIAGARA FALLS TECHNOLOGY CLUB.—The annual outing of the Niagara Falls and Buffalo Clubs was planned for September 17. Everything was ready—the replies showed the attendance would be large, but the elements were against us. A perfect deluge during the morning scared away all of the Buffalo members. One answered the roll from Lockport, and nine from Niagara Falls. With the ladies, there were eighteen who enjoyed the boat ride to Buckhorn Island and the sports indulged in. The baby contest was first on the program. This consisted in getting a certain amount of liquid nourishment from the regular nursing bottle fitted with the time-honored rubber end. Speed counted, but endurance also was needed. J. Strader, Jr., won this by a close margin over H. L. Noyes, '90. Baseball was featured by the playing of A. T. Hinckley, '08, and the horseback riding of J. Avery, '18, during the seventh inning. Fish chowder, some of the best ever, was made by our popular president, E. T. Pollard. All the other fixings, such as brown bread, beans, and Boston crackers, helped to make the meal most satisfying. The return to the mainland was made without incident. The singing seemed to still the waves. All the members who attended had a good time and were sorry the others were not able to be with us.

The roll showed: H. L. Noyes, '90, J. Strader, Jr., '96, E. T. Pollard, '02, Miss Pollard and Ruth Pollard, A. T. Hinckley, '08, and Mrs. Hinckley, P. E. Blood, '97, and Mrs. Blood, W. C. Read, '09, and Mrs. Read, James Neal, Mrs. Neal and Mrs. Woodward, J. M. Avery, '18, W. B. Leach, '16, N. Duffett, '11, and Mrs. Duffett.—*Norman Duffett, Secretary, care Union Carbide Co., Niagara Falls, N. Y.*

PHILADELPHIA — TECHNOLOGY CLUB OF PHILADELPHIA.—On Wednesday evening, October 5, 1921, the Technology Club of Philadelphia, opened its session for 1921-1922, with a dinner and meeting. These meetings are held once a month at the Engineers' Club, 1317 Spruce Street, Philadelphia, and dinner is called for 6.30 p.m., and

meeting at 8 o'clock. Our speaker for the evening was Commander H. C. Richardson, of the Naval Aircraft Factory, at the Navy Yard, Philadelphia.

Commander Richardson gave a very complete discussion of the airplane, bringing out many factors which were novel to us. He made the remark that the metal airplane was here now and here to stay and that in time it would probably replace the machine made of wood and wire to a great extent.

About thirty members turned out for the dinner and meeting. It is the intention of the Club this year to make its meetings more of a social nature than formerly. We want every Tech man in this vicinity to come out and be sociable and lend his enthusiasm. It is proposed that at one or two of our meetings we dispense with a speaker and have a smoker or gathering of a similar nature — just a general "all-round" good time and "get-together."

Every week on Thursday at 12.30 p.m. we are holding a luncheon in Wanamaker's tearoom. Every Tech man in this vicinity will be heartily welcomed here by some of his old Tech friends.

On Wednesday, November 2, 1921, we will hold our next monthly dinner and meeting. The secretary will be glad to receive the address of any Tech man in the vicinity of Philadelphia who is not now receiving notices.—*Dexter A. Tutein, Secretary, Finance Building, Philadelphia.*

ROCHESTER — TECHNOLOGY CLUB OF ROCHESTER.— The following officers were elected at the annual meeting of the Club on November 1, 1921. President, W. G. Wildes, '01; first vice-president, E. M. Hawkins, '97; second vice-president, F. L. Higgins, '04; secretary-treasurer, G. T. Lane, '13, Kodak Park; executive committee, J. F. Ancona, '03, for three years, to fill C. C. Culver's position.—*J. B. Wells, Retiring Secretary, 152 Alameda Street, Rochester, N. Y.*

SAN FRANCISCO — TECHNOLOGY ASSOCIATION OF NORTHERN CALIFORNIA.— Regular monthly luncheons for Technology alumni in this district have been arranged for the fourth Tuesday of each month at the Engineers Club in the Mechanics Institute Building at 57 Post Street, San Francisco.—*P. R. Parker, Acting Secretary, 507 Montgomery Street, San Francisco, Calif.*

WORCESTER — TECHNOLOGY ASSOCIATION OF WORCESTER COUNTY.— About thirty members of the Association met in the Boston Store restaurant, April 9, 1921, and listened to speeches by Prof. A. T. Robinson and Prof. C. L. Norton and entertainment by O. B. Dennison, '11, and F. D. Gage, '22. This is the first meeting of this Association in five years and it was the feeling of those present that meetings should be held at more frequent intervals.

The following officers were elected for the coming year: President, H. M. Latham, '93; vice-president, W. M. Bassett, '02; secretary-treasurer, H. L. Robinson, '11; executive committee, Carleton A. Read, '91 and Robert L. Fuller, '96.—*Harold L. Robinson, Secretary, 19 Hartshorn Avenue, Worcester, Mass.*

NEWS FROM THE CLASSES

1868

ROBERT H. RICHARDS, *Secretary*, 32 Elliot Street, Jamaica Plain, Mass.

Prof. C. E. Locke sent the following note taken from the September issue of *Mining and Metallurgy*.

Stuart Manwaring Buck, a member of the Institute from the first year of its existence, and one of its Managers from 1883 to 1885, died at his home in Bramwell, W. Va., on July 16, at the age of seventy-nine years. He was the son of David and Matilda S. Buck of Boston, and was educated at Williams College, at the Massachusetts Institute of Technology and at the School of Mines at Freiberg, Germany.

Mr. Buck was one of the pioneers in the development of the coal fields of West Virginia. From 1872 to 1877 he was connected with the Kanawha and Ohio Coal Company as engineer and as lessor; from 1877 to 1888 he was general manager of the East Bank Coal and Coke Company; from 1888 to 1900, president and general manager, Norfolk Coal and Coke Company; from 1900 to 1902, general manager, Dry Fork Coal Land Company; from 1902 to 1904, president and general manager, Sagamore Coal and Coke Co. In 1904, he began the consulting practice which he continued until his last illness. He was also a director in the Pocahontas Fuel Company.

Mr. Buck was married in 1872 to Grace Ross, of Bangor, Maine, who survives him, together with three children, Clifford R. Buck of Philadelphia, Mrs. Edward C. Sherman of Washington, and Miss Theda Buck of Bramwell, W. Va.

This is a circular letter I am sending to some friends to tell what the Richards family have been about.

Last February we raised the question as to whether it was not time to give Jim (Robert E. Jameson) Mrs. Richards' nephew some salt water experience. Mrs. Richards corresponded with innumerable hotels and settled on the above (Hotel Englewood). We accordingly spent the two months at West Yarmouth.

WEST YARMOUTH. Here we got away from the city heat mostly; only occasionally did we have hot weather. Jim took to it at once; he got so that he could swim twenty feet with his little floats, and he had eight or ten sails in fifteen-foot cat boats, and he rowed very nicely. Being at the seaside we noticed the dampness and found that when he got himself wet by accident, which happened about three times a day, it was very hard to keep enough dry clothes on hand. We made some lovely friendships which I hope we shall be able to keep, but in this busy world it is hard to do what we would like. I played lawn golf with some lovely people and had great pleasure from it. One hole was in the center and the shots were made from around at different points, one hundred to two hundred feet off. I had the luck to put the ball in at one hundred feet with one shot. I suppose it might be one chance in a million that it could be done. Jim was in the seventh heaven all through the Yarmouth stay. We were much in danger of spoiling him and spoiling ourselves at the same time. He wound up by planning to save his money to buy a boat for next summer. The sum of thirty dollars might prove to be enough.

RANDOLPH, N. H. Here Jim was in the seventh heaven again the moment he arrived. We have the White Mountains in full view of our verandah, Mounts Madison and Adams and King's Ravine being always before us with their ever-changing lights and shades, their varying colors of morning and evening and of mid day. I conceived the idea that it would be interesting to get color plates and to try to fix these beautiful variations by color photography, and these pictures have been taken as opportunity came. The dryness of the mountain air is most marked, in contrast to the seaside, after a rain. If the sun comes out, the grass is dry in a very short time, and the mold, which looks like snow in one's boots after two days' rest at Yarmouth, is never seen here. We are all interested in the birds, plants, trees and animals. The junksies and white throats come for crumbs on our verandah, our garden is a joy in giving us green peas, beans, corn, squashes,

beets, carrots and onions. We have grown potatoes very successfully in other years, but good as they are it costs too much to ship them home from the mountains. The number of rings on the spruces we have cut show that our four acres were an open pasture when Mrs. Ellen H. Richards purchased the lot in 1888. These trees now form beautiful breaks in the mountain landscape, and by suitable cutting can be kept within bounds. We have the native hare frolicking around our lawn; deer are seen occasionally; a bear is reported most every year not very far from our camp. We let Jim have a few squirrels with the little twenty-two rifle to partly satisfy his craving for that line of sport. He now wants to save up his money and buy a rifle, but when we get back to Elliot Street we hope some other craving will replace this, as he is certainly not old enough (nine years) for a rifle. The porcupines have troubled us a good deal, eating things that we do not want them to eat, and keeping us awake at night. So we have arrived at the feeling that they are to be classed with rats and mice as enemies of the human race, and we have killed one. I jumped out of bed with my night things on and bare feet and pursued him on the verandah with a flash light in one hand and a poker in the other. If he had any capacity or intention to throw his quills at me he had ample opportunity, in fact invitation, to do so, but no quills were thrown. Jim immediately grasped at the idea, from his reading about Indians and hunters, that he must have a belt cut from the skin on the back of the porcupine with the quills on. This I was commissioned to get him, and it has now been cured with salt and remains to be seen what is to be done to it next. The quills which I have had ample opportunity to try feel much like a wasp sting when they stick in one's fingers which they do with remarkable ease, and they suggest a visit to the dentist when one tries to remove them. I am wondering therefore what the surgeon's bill will be when Jim gets to wearing his new hunter's decoration (porcupine belt with the quills on). Not having my instep arches on during the porcupine hunt, I found afterwards that I had given my flat foot a bad strain, but with a little care in exercises and patience it was restored to normal in two weeks. The climate is very pleasant here, cool enough to have a little wood every morning for breakfast, and perhaps also again at night when we are spending our evenings in reading or playing games. One of the first things Jim and I did on arriving at Randolph was to go the rounds and visit all the little apple trees to see what were beginning to bear. I was walking rather briskly when my feet became tangled in barbed wire and down I went with a whack on the ground. It knocked the wind out of me and Jim almost thought I was dead for a moment. When I did get up I concluded I had a broken rib, but eight weeks of a little patience and it was all well. We have a little water company which furnishes water to the thirty-five cottages on Randolph Hill, eighteen hundred feet above sea level. This system has given us trouble on previous years because we did not get onto the difficulty, but now we have ample water even in this dry year, so we feel very confident we can supply the Hill at any time. We have taken up the game of archery, and have worked out a method that makes it as interesting for the beginner as for the more skilful. We have stakes on the range five yards apart. The beginner starts at five yards from the target and as soon as he gets his three arrows all in the target, he is promoted and so he gains stake after stake until he fails to get any of his three arrows in at one turn, then he is demoted. These events, heroic, or tragic, bring down the applause, the groans or the tears of the audience. So carried out it makes one of the prettiest of the lawn games. Of mountain climbing both Mrs. Richards and I have got beyond that; we only take short tramps to near points. Of automobile drives we have all that the heart can desire; the only limit is the purse and ours is very limited. Of friends we have made many warm ones up here, and they are a great joy to us and we hope we are to them. Mrs. Richards again won first prize for sweet peas at the September fair, which she enjoyed getting. Of trout fishing one can get some nice little trout if one tramps far enough, but we have not followed the sport.

1872

C. FRANK ALLEN, *Secretary*, 88 Montview Street, West Roxbury, Mass.

Ervin S. Hubbard, seventy-one years old, a government architect for thirty years and prominent in local Masonic circles, died today from apoplexy suffered at his home, 704 Twentieth Street, N.W. Mr. Hubbard had been ill for about three months, and

had put in his request for retirement, but his papers had not been acted upon. Funeral services are to be held at two o'clock Friday at the home. Interment is to be at Rock Creek Cemetery, under auspices of Hiram Lodge, No. 16, F. A. A. M., of which he was a past master.

Mr. Hubbard was born at Holden, Mass. After attending the Massachusetts Institute of Technology he became a practicing architect at Cleveland. Thirty years ago he came to Washington as an architect in the supervising architect's office, Treasury Department. For the last fifteen years he had been an architect in the office of the quarter-master general's office, War Department. He was one of those who planned the present State, War and Navy building. For the past ten years he had been engaged mainly upon fortification planning, but for the last three years had worked upon historical data for the office.

Mr. Hubbard took an active interest in the Masonic Fraternity. Besides being a past master of Hiram Lodge, he was a past high priest of La Fayette Chapter of Royal Arch Masons, a member of Washington Commandery and of Almas Temple of the Mystic Shrine.

He is survived by his widow, Mrs. Sarah E. Hubbard, a son, Lawrence Hubbard of Toronto, and a daughter, Mrs. Helen H. Lawton of this city. — *The Star, Washington, D. C., October 19, 1921.*

1874

CHARLES F. READ, *Secretary*, Old State House, Boston, Mass.

Col. Samuel P. Colt died at his home in Bristol, August 13. He was for many years a practicing lawyer, member of the Rhode Island Assembly, and Attorney-General of that State. He then became interested in the rubber industry, and in the formation of the United States Rubber Co., of which he became legal adviser and later its president. At the time of his death he was chairman of the board of directors of that company and director of many other business organizations. He was a generous contributor to the endowment fund of the Institute, and always kept an interest in the affairs of the Class.

We regret also to announce the death of Charles E. Haberstroh, which occurred September 25 at his home in Framingham. He was superintendent of the Sudbury Department Metropolitan Water Works for a period of twenty-one years, retiring a few years ago from that service. He was active in town affairs, being vice-president of the Farmers and Mechanics Savings Bank, and for several years a member of the school committee. He was a member of the New England Water Works Association and Boston Society of Civil Engineers. Haberstroh was a frequent attendant at the Class lunches, where his presence in the future will be missed.

Cunningham made a call a short time ago at the office of our president, who unfortunately was out of town. — Doane writes that he is maintaining an "even keel" in spite of the prevailing business, social and religious unrest. — Stevens says he is working days and sleeping nights; meanwhile in times of leisure, if any, he is engrossed in studying the problem "common sense." Wishes all the boys good luck. — Lamb is still engaged in metal specialties which he hopes to be able to write about at some early future date.

Brown has taken interesting pleasure trips the past summer, first to Warnock, Ohio, and later to Jaffrey, N. H. On the latter trip he ascended Mt. Monadnock to the top, going up on the Troy side and down on the Jaffrey side. He also took ten miles of the trails every day for about a week.

Schwab sent the secretary an item for the April number which was too late for insertion. In it he says in part:

"After two years as a special student in architecture I left the Institute in the summer of 1872 to find work at my home in Hartford, Conn. I found temporary employment with an architect, O. H. Easton, but after the great fire on November 9, 1872, I took a train for Boston. On the train I met a part owner of the building at the corner of Federal and Franklin Streets and the outcome was that he gave me a commission to design the facades. The building is composed of five stories and a mansard roof, designed by the owners, though I should have preferred to run up the elevation to a high roof. I also wanted white marble, but we finally compromised on Nova Scotia sandstone, which

was as near to the color of the stone used in the buildings of Paris as any material that could be obtained at that time. We are much better off nowadays where Indiana limestone is available and hardly to be distinguished from the stone used in the capitol of the French Republic. At Technology I was very much impressed by the teachings of Professor Letang, an ardent advocate of truth and sincerity in designing, and accordingly instead of disguising the gutter in a cyma recta moulding, painted to resemble stone, I made the gutter apparent in its own material, namely, galvanized iron. Soon after the completion of the building in 1873 a post-war panic came over the country which practically put a stop to building for six years. I soon abandoned architecture and hung out a shingle as teacher of languages. I also began writing for the newspapers and have continued in journalistic work of one kind or another ever since, but my old love — architecture — still holds first place in my heart, and I am a constant and interested observer of the developments and changes taking place in that important branch of human endeavor."

Blunt spent a day or two in Boston en route from Maine to Chicago in June and the secretary, with Nickerson's financial aid, tendered him an informal Class lunch, which occurred at Young's Hotel. Those present were Blunt, Nickerson, Read and Russ, together with Mrs. Blunt and their niece. It proved to be a very enjoyable affair.

The secretary had a pleasant trip to Buffalo attending the annual meeting of the National Society of the Sons of the American Revolution.

Mansfield and Barrus ran across each other "in the field" early in the summer, both, as it proved, serving the same client, one as auditor and the other as steam expert.

Chase writes from California:

"I have nothing out of the ordinary to report. Went to Chicago the last of June and had the pleasure of seeing Blunt, as I do each year about the same time. Returned to New Hampshire for a few days' stay and early in July started for the Pacific Coast, stopping in Minneapolis, Spokane, Seattle, Portland and so on, and meeting with Tech men in every city. In Pasadena I called on Perkins and had a very enjoyable two hours with him. He is still on deck, doing some tutoring, and was greatly interested in the news I could give him about the boys of '74. I now expect to be in New Hampshire early in November, ready to engage in my usual activities, not being yet in readiness to appear on the "retired" list. As you may know, I have other interests than business to occupy my time. Hope to run up with Jackson when in Los Angeles later on, and see Blunt on the way back."

1875

E. A. W. HAMMATT, *Secretary*, South Orleans, Mass.

If the Class of '75 finds little of interest in "Class Notes" in the REVIEW they must blame themselves; because they do not send any items to the secretary.

It was an article in the Boston *Globe* which called my attention to the death of our classmate Haberstroh, on September 25, 1921.

Charles Edwin Haberstroh was a son of John J. and Martha A. (Mason) Haberstroh, and was born in Boston, February 13, 1849. He entered the Institute in 1871 with the Class of '75, but took two years work in one, so was with the Class of '74 later on.

In 1875 he entered the employ of the Boston Water Board and was engaged on the construction of the Sudbury aqueduct. He had been connected with this work either as engineer or superintendent continuously until his retirement on February 13, 1919. From 1904 to 1913 he was a member of the School Committee of Framingham and was president of the Framingham Club. He was a member of the Boston Society of Civil Engineers, the New England Water Works Association, Alpha Lodge, A. F. and A. M., the Framingham Country Club and the Framingham Masonic Club.

In 1877 he married Helen A. Chase and leaves a widow and four children. The funeral was the twenty-seventh, at his home on Union Avenue, Framingham, Mass.

1876

JOHN R. FREEMAN, *Secretary*, 815 Grosvenor Building, Providence, R. I.

Hapgood of '76 got into the limelight and attracted the attention of newspaper paragraphers all over the United States by handing in his graduating thesis just forty-five years after the prescribed date, and consequently receiving his proper degree of Bachelor of Science at the recent commencement. "Happy" took the architectural course and has long been a successful contractor and builder. At the time of final examinations he was in poor health and overworked and so failed to complete his thesis. He took the occasion of recent dull business to inquire about his record and found that the presentation of a thesis was his only obstacle to a degree.

Charles T. Main rounded up as many members of the Class as possible a few weeks ago for celebrating the forty-fifth anniversary of graduation by a reunion at his summer camp near the White Mountains. The Class is so widely scattered that out of the surviving members only eight were got together — Main, Hodgdon, Crosby, Baldwin, Wood, Atwood, Hapgood and Freeman. The trip up and back from Boston to Holderness, N. H., was made by automobile and three days were spent very happily in recounting the experiences of college days and the forty-five years that have since come and gone.

Main has long been one of the foremost American designers of industrial plants and hydro-electric developments, maintaining a large office force of draftsmen and designers. His son, Charles R., is now assisting him in the care of the business. — Crosby long ago retired as professor-emeritus but is still as active as a mountain goat, investigating mining possibilities and the geology of dam sites all over the western United States; with an occasional excursion to Mexico. Hodgdon continues, as for many years past, chief engineer for the State Board that has charge of port developments along the Massachusetts coast. Wood is associated more or less with Hodgdon but more particularly on matters connected with state boundary surveys and the like. Baldwin retired some years ago from active business but by way of keeping his hand in at engineering is assisting in the compilation of hydrographic records preparatory to the extension of the Boston Metropolitan water supply. Atwood is chief chemist of the Massachusetts Cotton Mills, but also devotes much time to research and consultation work on chemical problems.

Freeman continues doing business at the old stand, but during the past summer (with Mr. Main) was a member of the delegation from the National Mechanical and Civil Engineering Societies of America to the National Engineering Societies of Great Britain and France, for conveying the John Fritz medals to Sir Robert Hadfield and to Eugene Schneider and for conveying fraternal greetings of engineering brotherhood.

The delegation was given a series of most hospitable receptions in both countries and later, Mr. Freeman joined about forty members of the Society des Ingenieurs Civil de France on an excursion to the region of the French Alps for inspecting recent hydro-electric and industrial developments, going later to Marseilles for an inspection of the great canal-tunnel and the extensive harbor improvements in progress.

1877

RICHARD A. HALE, *Secretary*, Essex Company, Lawrence, Mass.

F. W. Wood, '77 has been appointed on the Board of Judges relating to claims arising in connection with the United States Shipping Board. Some important cases are to be decided.

The secretary visited Hibbard at Plainfield in September and in company with C. W. Goodale, '73, several interesting golf courses were played. — The secretary takes pleasure in announcing that he has become a grandfather, as Richard A. Hale, 3d, arrived at Lisbon Falls, Maine, October 5 and everything is flourishing.

The secretary wishes to call attention to the death of Hiram F. Mills, a former member of the corporation of the Institute who took an active interest in all committees on which he served. He left a bequest of \$10,000 to Technology. The secretary had been associated with him for more than fifty-two years in Lawrence and succeeds him as chief engineer of the Essex Company.

1884

H. W. TYLER, *Secretary*, M. I. T., Cambridge, Mass.

The Class dinner for 1920-21 was merged with the inauguration banquet in June, but the attendance was so limited that it may prove necessary to hold a real Class dinner before the end of the year. Suggestions in regard to this will be welcome.

By appointment in July as United States senator from Delaware du Pont has received a new political honor. The following is his telegram of acceptance:

"Your telegram advising me of the great honor you have conferred upon me just received. It would be impossible for me to express the great gratitude and how greatly complimented I feel at being thus honored by the State of Delaware, through you, its chief executive. As you know, I have never cared for any political ambition, but when called to duty by one's State or country, there is but one thing to do — give the best in you. This I will do. There are men in the State who could fill the position more brilliantly and with greater credit, but there are none who would work harder for the good of the nation and for Delaware. I hope to show you and the good people of Delaware my appreciation of this great honor by acts rather than words. I accept the appointment, knowing it is to be the greatest honor of my life."

Has any other Class produced a real United States Senator?

Marriage announcements of the summer include Katharine Mary Rich to Wilbur C. Fielder of Washington, D. C., and Evelyn Hope Flanders to Snelling Salter Robinson at Cedar Hedges, Northport, Maine.

The Class secretary and Mrs. Tyler, with their youngest daughter, have had a very interesting western tour on the basis of a University of California exchange. On the way east two of the family made the ascent of Mount Rainier and all three did some climbing in the Canadian Rockies.

K. Y. Kwong is mentioned in recent newspapers as Engineer in Chief of the Peking-Suiyan Railway, which has recently procured the largest existing locomotive from the Schenectady Plant of the American Locomotive Company. The Chinese engineers co-operated in its design. Mr. Kwong is spoken of as one of the most prominent engineers in his native country.

1885

I. W. LITCHFIELD, *Secretary*, 10 Kenmore Street, Boston, Mass.

The secretary had a note from Dave Baker in July, dated at 7 Wildey Street, Tarrytown on Hudson, stating that he was back in the United States on leave of absence and expected to be in Boston during July, although he did not put in an appearance. He said that he has been ill and granted leave of absence by the Board of Directors of the Australian Company he is connected with. He was much better when he wrote.

Notice of the marriage of Marjory, daughter of Mrs. Edward Dewson to Mr. Malcolm McFaul, on June 20 of this year, was received some time ago but escaped notice in the July Class notes. Ed was in Boston just before the Class reunion in June, attending the anniversary of the English High School, but was unable to get to Wianno with us.

In these days, when our faith in the old established doctrines is being shaken, when we question Newton's law of gravitation and other fundamentals, when human credulity hesitates at most of the miracles described in Holy Writ, we turn to the good old tried and true old wives' proverbs as the only rock upon which we can anchor our faith, and here comes Arthur Little with a lot of glue and a squirt gun and persuades the American Reading Public from the pine clad hills of Maine to the golden sands of California that it is possible to make silk purses from a sow's ear. It was a clever bit of scientific entertainment injected into the monotony of a summer month and was noticed in most of the national news publications. The interview given by Mr. Little to the *Boston Herald* is as follows:

"A silk purse made from sows' ears, as chemistry's answer to the old saying that it couldn't be done, will be shown at the Chemistry Exposition in New York during the week of September 12. In announcing the successful results of experiments, Arthur D. Little, Inc., chemists and engineers, of Cambridge, said the silk was not very strong and that there was not present industrial value in the process involved. It was more or less

the product of chemistry at play, but a contribution also to philosophy in proving the fallacy of the old proverb. In reciting the factors that entered into the transition of sows' ears from Chicago stockyards to a silk purse such as a woman might carry, the chemists explained that the first step was to analyze the silkworm's method of making silk. This done, its caterpillar chemistry was copied in the laboratory. It was found that man had to provide a substitute for a process by which the silkworm exudes from two fine ducts in its head minute threads of a viscous liquid, coated with another secretion, which are cemented into a double strand. This becomes a firm filament of silk when it coagulates on reaching the air. Analysis of this viscous liquid showed it to be like glue, and with somewhat similar chemical properties. The sow's ear being chiefly gristle and skin, also has the natural elements of glue. This was obtained from the ears and it was put through several processes of preparation, filtered under pressure and placed in spinning apparatus of a special design. The solution of glue and chemicals came out as sixteen very fine colorless streams, joined into one composite fibre, treated to give it strength and color, and processed yet again to obtain the desired soft, silky feel. The weaving followed on a small hand loom, the fabric was formed and the purse made."

At the annual meeting of the American Chemical Society this summer the sow's purse was exhibited.

Word was received in June of the death of Minot Tirrell at Stockton, Cal. A letter from Mrs. Tirrell states that he had a stroke in May and died on June 9 following a second stroke. He was fifty-eight years of age. Although Tirrell has lived in California for some time he was an enthusiastic member of the Class and responded to the communications of the secretary from time to time.

Everett Morss continues upward in his public career and is now President of the Boston Chamber of Commerce and at this writing is offering the resources of the Hub to President Harding, Governor Cox and the general public. Morss spent several months in Europe this year and was therefore unable to be at the Class reunion at Wianno. During the endowment fund drive of the Georgia School of Technology he went there to assist them in arranging their campaign.

At a joint meeting of Albany Society of Civil Engineers and Albany Chapter American Association of Engineers, held November 2, Alex R. McKim, president of the Albany Society of Civil Engineers and State Inspector of Docks and Dams spoke on "How to Construct Dams Safely."

George Nye, city engineer of New Bedford, is making a record for himself in that city, as is attested by various items published in the New Bedford papers. He was present at the National City Conference in Pittsburgh and brought back some ideas that he is putting into effect at New Bedford with good results.

Some of the Class remember Percy Griffin who took the Architectural Course and who made some of the pen sketches for the earliest numbers of *The Tech*. News came on March 15 that he had died in St. Vincent's Hospital of pneumonia after a short illness. After leaving the Institute he studied in the office of H. H. Richardson and designed many public buildings in New York, Virginia and other States. At the time of his death he was a member of the firm of Griffin & Wynkoop with offices at 30 Church Street, New York.

The secretary has moved from his former residence in Newtonville and is now located at 10 Kenmore Street, Boston.

1888

WILLIAM G. SNOW, *Secretary*, 112 Water Street, Boston, Mass.

The secretary learned recently of the death of Charles L. Weil at Port Huron, Michigan, on July 16 last.

He was born in North Andover, Mass., in 1866 and graduated with our Class in the Department of Mechanical Engineering. After leaving the Institute he was instructor of mechanical engineering in the Lehigh University for three years. He later was professor of mechanical engineering at Michigan Agricultural College from 1893 to 1906.

Of his work there President Kedzie has said, "Professor Weil was a strong personality. He was of such positive worth that those who came in contact with him will never forget him. People who casually visit Michigan Agricultural College and see its many buildings

and its wonderfully broad and beautiful campus are too prone to think of these outward manifestations as the college, when in truth it is personalities and capabilities of such men as Weil that have made and are making the college what it is. The eagerness and capability of Mr. Weil in engineering was remarkable. It will be remembered that Professor Weil designed and put into operation the present power and heating system at the college. It is said of him that after leaving the institution he was always interested in Michigan Agricultural College and her graduates in engineering. In 1905 Weil opened an office in Detroit as consulting engineer. In 1909 he went to St. Clair, where he made a careful study of the processes employed by the Diamond Crystal Salt Company. A number of improvements and inventions were made by him greatly increasing the efficiency of the processes. At the time of his death he was vice-president of the Diamond Crystal Salt Company."

Weil was a member of the following societies and clubs: City of the Straits, Sons of the American Revolution, Detroit Engineering Society, Detroit Athletic Club and Rotary Club of Port Huron.

In the year 1893 Weil married Miss Ella Bass, five children being born, of whom two are living, Helen, now Mrs. Clarence Stephens of Colorado Springs, Col., and Elizabeth P. Weil of Port Huron, Michigan.

Weil will be remembered as one who was always present at our gatherings when possible, his last attendance being at our Class reunion in June, 1920, where he related a number of his experiences here and abroad.

Edwin S. Webster has recently been appointed by Governor Cox on a commission to study State administrations from the financial standpoint.

Stone & Webster recently held a convention of their managers from all parts of the country. The *Boston Transcript* of October 14 stated:

"The addresses by Charles A. Stone and Edwin S. Webster, the founders of the organization, brought out strikingly the small basis on which the firm started business in 1889, and showed that Stone & Webster have been pioneers in every step of the electrical industry from its very beginning. Other members of the firm discussed various features of the business in their relation to the management of public utilities. The total capitalization of the public utility companies under Stone & Webster management is \$219,000,000, and their total gross earnings for the last calendar year were more than \$40,000,000 — four times what they were in 1904.

1889

WALTER H. KILHAM, *Secretary*, 9 Park Street, Boston, Mass.

The *Electric Railway Journal* of July 30, 1921 contains the following in relation to the career of Frank Dame:

"Frank L. Dame was elected president and Edwin Gruhl was elected vice-president of the North American Company, New York, at a recent meeting of the board of directors. Mr. Dame, by training and experience an engineer, is a man who has exerted a very marked influence on utility development through his participation, at first in charge of construction of many properties in the Northwest, then as manager and finally through his connection with several of the largest utility holding companies.

Mr. Dame began his business career in the testing room of the Westinghouse Electric and Manufacturing Company in Pittsburgh. After a very short training his first construction assignment was at Newburgh, N. Y., and in December, 1889, he was sent to Portland, Ore., as the engineer of that office of the Westinghouse Company. A year later financial depression caused the closing of this office, as well as some others, and Mr. Dame entered the public utility operating field as general superintendent of the Vancouver (B. C.) Railway and Light Company. The end of 1891 found him again located in Portland as engineer of the light department of the Northwest Houston Electric Company. In the following two years he was also active in street railway construction and with the replacement of equipment in several Oregon and Washington cities. This was the beginning of an association of twenty-one years with the General Electric Company, during part of which time he was the operating head of various utility properties in the Northwest, including

the Seattle Consolidated Street Railway and the Tacoma Railway and Power Company. This period covered reconstruction development, management and financing of various utilities, and also many official connections with corporations not enumerated.

In 1903 Mr. Dame went to Schenectady as engineer for the committee on local companies of the General Electric Company, which was in charge of all public utility properties then controlled by it. In the following year he was also made engineer of the newly formed Electric Securities Corporation, a subsidiary of the General Electric Company. In 1909 he was chosen vice-president of the Electric Bond and Share Company, a position which he relinquished in the latter part of 1912 to take a long-needed rest.

However, in 1913, Mr. Dame again took up active work, when he joined the organization of Harrison Williams, New York. Since then he has served as an officer and director of nearly all of the companies in which Harrison Williams has a controlling interest, including the Central States Electric Corporation, of which he is president; the Cleveland Electric Illuminating Company, of which he is vice-president, and the Republic, Railway and Light Company."

Zenas Bliss, State Tax Commissioner of Rhode Island, is president of the United Electric Railways Company which now operates the street cars in Greater Providence. The Providence *Journal* of July 9, 1921, states that for the first time in twenty-eight years the lines are being operated by their owners. The new company, organized to own and run the traction system formerly owned and operated by the Rhode Island Company has taken over the traction system to which it had gained title only a week before. This is interesting news, but a much more important item regarding Bliss appeared in the Boston *Post* of July 29 stating that he had just hooked the first tuna fish of the season in New England, weighing fifty-one and three-quarters pounds. The same paper adds that Governor Bliss hooked one tuna so big that in playing it out it took so long a time and so much effort that his line was completely frayed out and his fish escaped. How about this, Zenas?

Dunphe, the Masfield of '89, has returned from his voyage to Copenhagen and has promised the secretary an account of his trip, which unfortunately has not been received in time to incorporate it in this issue.

Sanborn writes from Columbus, Ohio, that he is "assistant consultant" in the Vocational and Educational Training branch of the War Department, with headquarters at Camp Shuman, Ohio. He is greatly interested in this type of training of the enlisted men.

1890

GEORGE L. GILMORE, *Secretary*, Lexington, Mass.

Cards have been received announcing the marriage of Dorothy Flood, daughter of our classmate, Samuel Douglas Flood, to Mr. Robert Haarstick Gardner, on September 24.

A circular was received last June from Darragh deLancey, secretary of his preparatory school class, calling for their fortieth reunion. Darragh was evidently in his element, and doubtless the reunion was carried on very much like some of the early gatherings of the *dy/dx*.

The death has been reported of George Wood Taylor on July 15. Taylor will probably be remembered by some of you as first lieutenant of Company B in our freshman year. He had been in poor health for some time.—Charles W. Alden's address is 358 Empire Building, Seattle, Wash.—Charles O. Churchill is located at 373 White Street, Springfield, Mass.

G. L. Gilmore, your secretary, with Mrs. Gilmore, spent three months abroad this summer, having gone over on June 1 as a delegate to the World Cotton Conference at Liverpool and Manchester. Following that they took an auto trip north to Edinburgh, returning to London, and after about ten days in London, went to Paris and while there your secretary made a visit to the battle front with Mrs. Gilmore. After that, two delightful weeks were spent at LeTouquet on the seashore, where part of the time was spent on the golf course. Returning to Paris for about ten days, they then sailed for home, arriving the latter part of August.

While in Paris, Fred Royce showed up, and he also had a trip to the battle front. Atherton Loring's family were in Paris, but your secretary was unable to connect with them. Loring joined them in August and returned about the middle of September.

Fred H. Dodge, as usual with his family, spent the time at Rangeley Lake this summer. Fred was seen just for a few moments in Boston on his way home, and reports that he put in thirty-six holes of golf a day. This probably means that Fred will be in shape for the golf match at our thirty-fifth reunion in 1925.

Mr. and Mrs. William Z. Ripley have announced the engagement of their daughter Ruth to Emmett K. Carver, Harvard, '14. Mr. Carver is the son of Professor and Mrs. Thomas N. Carver of Cambridge.

1891

HENRY A. FISKE, *Secretary*, 275 West Exchange Street, Providence, R. I.

James Wilson Pierce died very suddenly on October 3, at Wellesley, Mass. "Jimmy" Pierce attended the thirtieth reunion and seemed to be in the best of health. He enjoyed the outing very much as he had not been at one for some years and spoke to me and others of the good time we all had. On the Monday following, Jimmy Pierce, Fred Blanchard and myself went to Hyannis and played golf and had an especially pleasant day. The following brief account of his life since leaving the Institute is largely taken from the questionnaire he sent to the secretary last spring.

After graduating in 1891, he was for three years with the City of Boston in survey work and three more years with the State Highway Commission. From 1897 to 1900 he was with the City of Cambridge as engineer of parks. From 1900 to 1902 he was in Cuba in general engineering work for the United States Army. He then came back to Cambridge as city engineer. In 1907 he went to Durham, N. C., in general contracting work. For the next two years he was on war work in connection with the plant at Squantum, Mass., and the Army Supply Base at South Boston. He went with Lockwood, Greene & Company in 1919 and was with them until shortly before his death.

He was a member of the Theta Delta Chi Fraternity and a member of the American Society of Mechanical Engineers.

In 1897 he married Miss Alice Howe of Roxbury who died in 1912. She was the daughter of Mrs. Frank E. Howe (Jessie Collidge) of Brookline. He had two children by his first wife, a daughter Eunice Fabens who was married to Ernest O. Gosbee and who has one child, Ernest O. Gosbee, Jr., three months old. The son is Robert Howe Pierce and is ten years old. "Jimmy" was one of the five grandfathers at the reunion. In 1914 he married Catherine Jones of Durham and they had two children, James Wilson, Jr., four years old and Henry Jones, two years old.

We were all fond of "Jimmy." He had a particularly bright and cheerful disposition and those of us who attended the reunion will have many pleasant memories and we are glad that he could be with us at that time.

Miss Barbara Campbell, daughter of Mr. and Mrs. Jeremiah Campbell, was married to Mr. Dana M. Trindle on Saturday, September 17, 1921.— Mr. and Mrs. Charles Aiken announce the engagement of their daughter, Dorothy Squires to Robert Bruce Johnson, Harvard 1917.— Mr. and Mrs. Henry A. Fiske have announced the engagement of their daughter, Lillian Proctor to Stanley Dennison Howe of Brookline.— F. W. Howard has two more grandchildren; Elizabeth Jeane Howard, born July 7, 1921, who is the daughter of Allan F. Howard, M. I. T. 1919.— Priscilla Elizabeth Howard, born July 25, 1921, who is the daughter of Hall H. Howard, M. I. T. 1918. This gives Howard a total of four grandchildren, a long lead over the other grandfathers.

Walter Hopton writes that he has severed his connection with the Solvay Process Company after having been with them for eighteen years. In view of his long and satisfactory service, he is kept on the payroll for a year, being kept free in the meantime to look about for a permanent connection.

1893

FREDERIC H. FAY, *Secretary*, 15 Beacon Street, Boston, Mass.

GEORGE B. GLIDDEN, *Assistant Secretary*, 551 Tremont Street, Boston, Mass.

Because of unavoidable absence from Boston on a business trip, the secretary missed the twenty-eighth annual dinner, and for once the assistant secretary had to do some work. Here is his report of the meeting:

The twenty-eighth annual meeting of the Class of '93, M. I. T., was held at the Engineers' Club, Boston, on Wednesday evening, June 22, 1921. An informal dinner was served at 6.45, although advertised for 6.30. The delay was occasioned by Dawes, Latham, Crosby and Dillon, who could not leave a very interesting foursome. The dinner was a *peach* — just listen.

Lobster — a la Newburg in shells au gratin, olives, cream cheese, etc. Cold tomato soup — entasse, in cups, some with two handles and some with one. Texas frogs' hind legs with julienne potatoes. Each pair of legs being as large as a half chicken. (Some guessing by those present as to what sort of birds were being served.) Stuffed whole guinea chicken — to each man with asparagus on toast, Hollandaise sauce. Ice cream, cake, coffee — and all for the sum of \$3. Fred Fay was responsible for the dinner and incidentally is treasurer of the Engineers' Club.

The Class was called to order at eight o'clock, Professor Spofford in the chair. It was voted to dispense with the reading of minutes of the last meeting. It was voted that Dawes, Morss, and Glidden be appointed a committee of three to make up the slate for the ensuing year. They reported as follows: President, Fabyan; vice-president, Dillon; secretary, Fay (for life); assistant secretary, Glidden; and same were duly elected.

Henry Morss spoke on the need of funds for athletics and suggested that the request of the Advisory Council be complied with, namely, that we should appropriate \$50 a year for five years for athletics, and it was so voted. Morss, Fabyan, Glidden, were appointed by the chair, as a committee of three to see that the necessary funds were raised. It was voted that a Class catalogue be issued on our thirtieth year, 1923. After this, Spofford gave us a general talk on conditions at the Institute, both social and academic, this being followed by a general discussion of courses. Fabyan moved, and it was voted to hold a smoke talk in October, which will be in a way preparatory to "Doings" on the thirtieth outing. It might be mentioned that this was the first annual meeting on record at which Fay was not present.

Adjourned at 9.30.

The following men were present:

Spofford, Rogers, Dawes, Reynolds, King, Keith, Dillon, Glidden, Latham, Waldron, Fabyan, Biscoe, Cutler, Graves, W. W. Crosby, Wingate, Morss, Ashton, A. L. Kendall.

THOMAS CURTIS CLARKE, M. Am. Soc. C. E.

Died May 25, 1921.

By the death on May 25, 1921, of Thomas Curtis Clarke, the Engineer Officers' Reserve Corps lost an officer of the highest standard; the country lost a citizen who had given completely of his services as an engineer in peace and war and who was an advocate and real worker in the cause of national defense; and the Society lost a member who, in his specialty of metallurgical research, can ill be spared to the profession.

Thomas Curtis Clarke was born in Philadelphia, Pa., on December 11, 1873, his father having been the late Thomas Curtis Clarke, Past-President, American Society of Civil Engineers.

The son of one of the most distinguished engineers of his time, Mr. Clarke, like his brothers, was educated in the engineering profession, having taken a special course in metallurgy at the Massachusetts Institute of Technology. After leaving the Institute, he became for a time a chemist at the furnaces of the Union and South Works of the Illinois Steel Company, but returned to the Institute to complete some special studies. For a few years after leaving the Massachusetts Institute of Technology, in 1893, Mr. Clarke served as an inspector and assistant engineer on the construction of the Third Avenue and Willis Avenue Bridges across the Harlem River in the city of New York. Between 1897 and 1902, he was engaged in business in which, however, his engineering

education was used. In 1902 and 1903, he was treasurer of the Imboden Coke and Embree Iron Company, and had engineering charge of the construction of the furnaces of the Embree Iron Company.

In 1904, Mr. Clarke was made treasurer and assistant general manager of the Astoria Steel Company. Later, he was asked to take charge of the construction and installation of the Illinois Steel Company's coal washers at Danville, Ill., a position in which his unbounded energy and experience was given full play. During 1905, he was engaged as assistant superintendent of the Lackawanna Iron and Steel Company, at Lebanon, Pa., in charge of five blast furnaces and by-product coke-oven plants. It was during this period, that he became interested in the specialty of coal and coke by-products, which specialty led him into much foreign travel, in investigations of by-product coal and coke plants in Germany, France, and other continental countries.

In 1912, Mr. Clarke became interested and took charge of the development of the Niagara Company, comprising a by-product coke plant, at Buffalo, N. Y. This plant was being built under German plans and patents, but was stopped, however, at the outbreak of the World War in August, 1914, as it was being constructed largely with German capital.

Mr. Clarke had become interested in military affairs as early as 1895 when he joined the National Guard of the State of New York and was an active student of military affairs and operations.

In 1915 and 1916, foreseeing with a military eye, and aided by his experience in Germany and his acquaintance with the German people, that it was inevitable that the United States would become an active participant in the World War, he devoted his energies and time to the preparedness movement. In 1916, he assisted in the organization and training of engineer battalions in New York City and was commissioned a captain in the Engineer Officers' Reserve Corps when it was formed through a provision of the National Defense Act of 1916.

On the entry of the United States into the war, Captain Clarke, with many other engineers of New York City, was ordered to the First Officers' Training Camp at Fort Oglethorpe, Ga., in May, 1917. On his graduation from this camp in August of that year, he was named as adjutant of the 104th Engineers, a regiment organized from this training camp. Later, he was promoted to be lieutenant-colonel and assigned to the 110th Engineers which was the Divisional Engineer Regiment of the 35th Division. This regiment went overseas with the division in the spring of 1918. When Colonel Cheney was promoted to the rank of brigadier general, Lieutenant-Colonel Clarke succeeded to the command of the regiment with the rank of colonel from August 7, 1918. Colonel Clarke commanded this regiment in the Meuse-Argonne Offensive. The regiment performed the usual work of an engineer regiment attached to an active combatant division and, in addition, it was called as infantry into the lines where it took over a sector of the front line in the active offensive then in progress.

Colonel Clarke occupied as his post of command a German "pillbox," the German artillery directing their fire thereon, making it necessary for him and his immediate staff to change their post of command during the height of a severe artillery fire. The regiment acquitted itself with great credit with a loss of more than three hundred men in the emergency, two officers and seven enlisted men having received the Distinguished Service Cross for their work. The regiment was cited for its service, and Maj.-Gen. W. C. Langfitt, U. S. A., Chief Engineer, American Expeditionary Forces, commended it, as follows:

"Before issuance of definite orders for your regiment to return to the States, it is my desire that the command be advised that they have met the conditions imposed by the conflict just concluded in a most satisfactory manner. The construction of field fortifications and bridges across the Somme, the frontline construction, tunneling, and road work in the Vosges were notably well done. The excellent record made in front-line service is a matter of pride to the chief engineer as it should be to each soldier in your regiment. I desire that you and your command know that the services rendered were highly satisfactory and deserve commendation."

Early in Colonel Clarke's service with the American Expeditionary Force and before the Argonne Offensive, he was decorated with the Croix de Guerre by the French Government as a result of his voluntary participation in a raid which broke through the German lines.

After the armistice, Colonel Clarke was relieved from duty with the 110th Engineers, and was appointed Acting Deputy Director of the Army Transport Service, at Tours, France, serving as such until March 31, 1919, when at his own request he was ordered home and mustered out of the service. His interest, however, in future preparedness, and in the Engineer Officers' Reserve Corps, prompted him to take a commission as colonel in that corps, the rank which he held at the time of his lamentable death.

After being honorably discharged from the service, Colonel Clarke became vice-president of the International Coal Products Company, in direct and immediate charge of the engineering work. He held this position until his illness required him to relinquish it. An operation for an intestinal disorder resulted in pneumonia which caused his sudden death, his fatal illness having been caused undoubtedly by the fact that he had been gassed repeatedly while in service and when pneumonia developed, medical skill could not save him.

Colonel Clarke's genial personality, wit, and unfailing patience and good nature endeared him to his hosts of friends both in and out of the profession and they mourn his loss.

He was married on July 21, 1897, to Elizabeth I. Knox, who, with a daughter, survives him. He is also survived by two brothers, Mr. E. A. S. Clarke, for many years president of the Lackawanna Steel Company and now president of the Consolidated Steel Corporation, and Lt.-Col. Herman Clarke, of London, England.

Colonel Clarke was a member of the Metropolitan Club and the Army and Navy Club of New York City, and the Rumson Country Club. He was also a member of the American Institute of Consulting Engineers, Society of Chemical Industry, Society of American Military Engineers, and the Military Order of the World War.

Colonel Clarke was elected a member of the American Society of Civil Engineers on May 4, 1909. *Proceedings of the American Society of Civil Engineers, October, 1921.*

The following deaths have been reported besides Colonel Clarke's:

Charles F. Best, May 24, 1918; John R. Burke, April 27, 1920; Nathaniel R. Craighill, 1920; George T. Hanchett, 1919; Levi C. Hayden, December 22, 1918.

Charles V. Allen is still representing the Westinghouse interests in Mexico City. He sent his regrets at the time of this year's annual dinner with the assurance that he would be on hand for the thirtieth reunion in 1923. His address is Apartado 812, Mexico City, Mexico.

Frederic W. Baker, for the past four years assistant superintendent of construction at the Bath Iron Works, Bath, Maine, was recently appointed superintendent of construction to succeed the late, well-known John McInnes who died January 22, 1920, while on a vacation visit to his old home in Scotland.

Fred Baker, who graduated with the Class in 1893, took the Naval Architect Course at Glasgow University, since which time he has been engaged in ship building, being connected with the Cramp, New York Ship, Newport News and Dixon Ship Yards, as well as with the Bath Iron Works.

William T. Barnes, member American Society Civil Engineers, has withdrawn from the firm of Metcalf & Eddy, consulting engineers of Boston, and is chief engineer of the Spring Brook Water Supply Company, which supplies Wilkes-Barre, Penn., and vicinity, his address being 30 North Franklin Street, Wilkes-Barre, Pa.

After graduating with the Class, Barnes was engaged for a few years on railroad work in Indiana and on water works construction with Rice & Evans. He then entered the employ of Leonard Metcalf, with whom and his successor, the firm of Metcalf & Eddy, he continued until 1920. In 1913 he was admitted as a partner and for about seven years was in charge of the Chicago office of the firm.

In his present position Mr. Barnes has charge of the design and construction of new works and the technical maintenance and operation of the existing works, furnishing water to a population in excess of 300,000, including besides Wilkes-Barre the cities of Pittston, Plymouth, Kingston and Nanticoke and a number of smaller communities.

Among the recent changes of address are noted the following:

Mr. Frank S. Badger, 9 Cloak Lane, London E. C. 4, England; Mr. Minard T. Barbour, Fontana, Box 128, Wisconsin; Mr. James C. Boyd, Readfield, Maine; Mr. Warren E. Brooks, 82 Fulton Street, Wausau, Wisconsin; Mr. Charles E. Buchholz, care George Hall Coal Co. Ltd., 211 McGill Street, Montreal, P. Q., Canada; Mr. Wilfred

A. Clapp, P. O. Box 105, Fort Sheridan, Illinois; Mr. Charles F. Morse, Lock Box 877, Southampton, New York; Mr. Howard R. Sargent, General Electric Company, Bridgeport, Connecticut; Rev. George B. Smith, Liberty, New York; Mr. Charles A. Tripp, 2003 Van Buren Street, Wilmington, Delaware; Dr. James S. Wadsworth, care Franklin Union, 41 Berkeley Street, Boston, Massachusetts; Mr. Charles R. Walker, Hingham, Massachusetts; Mr. Cadwallader Washburn, Post Office Box 451, Santa Barbara, California.

1894

PROF. SAMUEL C. PRESCOTT, *Secretary*, M. I. T.

The past few months have given us very few items from our members of the Class, but it is with great pleasure that we note the return of Price from his travels in distant parts of the world and learn that he is now connected with the Farmers Loan & Trust Company, 20 William Street, New York City. It is to be hoped that before the next issue of the REVIEW the secretary may be able to get from him an account of his travels, which have included various parts of Europe and Africa at least. Price always sees things with a very observing eye and any account of his journey will be sure to be highly entertaining and give much information pertaining to the countries which he has visited.

Reed Hill has also gravitated to New York where he is now connected with the Maritime Hydraulic Oil Service at 2 Stone Street.—Horton is chief sanitary engineer in the Department of the State Engineer at Albany, N. Y. His work is presumably much as it has been in the past, that is, the chief sanitary engineer connected with the Department of Health and Conservation.—McKibben's son is a member of the freshman class. The secretary looks to making his acquaintance at an early time.

Dick Proctor has finally broken a long silence and the secretary was very glad to receive a letter from him a short time ago in which he states that his daughter, Mary Helen, is at the Walnut Hill School where she is taking a very active position in student affairs. One of her special jobs this year is to secure outside speakers to talk to the girls at the school, and through the suggestion of her father, the secretary and doubtless other '94 men, have been put on her list of prospects.

The Institute still holds its quota of '94 men on the Faculty, the present members being Gardner, Owen, Breed, Haven, Phelan and the secretary. I have not yet been able to determine how many sons of '94 men are in attendance, but there are several and doubtless others who will show up sooner or later, either after having had a college course elsewhere, or in the regular course of their training after leaving preparatory school.

1895

WALLACE C. BRACKETT, *Secretary*, 105 Washington Street, Boston, Mass.

The Class secretary has received very few news items for this issue of the REVIEW. It would be a great help if the different members of the Class, as they learn of interesting news would send the items to the secretary so that he can see that they are properly included in each copy of the REVIEW.

Arthur D. Dean has been appointed assistant director of the Veterans' Bureau, in charge of the Rehabilitation Division. A note from the issue of the New York Times of August 20, gives the details of this as follows: "Arthur D. Dean of Columbia University was appointed today assistant director of the Veterans' Bureau, in charge of the Rehabilitation Division. Previous to his acceptance of this position Mr. Dean held the chair of Vocational Education at Columbia University. For eight years he was the State Director of Vocational Education of New York, in charge of all State-aided vocational training in public schools.

Mr. Dean was graduated from Rindge Technical School, Cambridge, Mass., and received a degree from the Massachusetts Institute of Technology. An honorary degree was conferred upon him by Alfred University. Gathering his experience in actual contact and work among men receiving vocational training, he worked in stores and on farms

and spent one year in a shoe factory as a laborer, to get the actual point of view of the time-clock puncher. He recently completed a survey of the New York State prison. He served as a major in the World War in charge of reconstruction work in the United States army hospitals."

Late in August, Richard Morey called on the secretary. He had been spending some time with his family at Rye Beach, having come on from St. Louis to take his vacation there. The secretary, with Tom Booth and Harry Barrows accompanied Morey on an inspection trip through the Institute buildings. If he enjoyed the trip as much as the rest of us enjoyed seeing him, we are sure he won't miss coming to visit us the next time he comes to Boston.

1896

CHARLES E. LOCKE, *Secretary*, M. I. T., Cambridge, Mass.

J. ARNOLD ROCKWELL, *Assistant Secretary*, 24 Garden Street, Cambridge, Mass.

Frank E. Guptill has finally become a benedict, according to an announcement received by the secretary to the effect that Mr. and Mrs. Oliver Brown announce the marriage of their daughter Catherine Mary to Mr. Frank Edward Guptill, on Friday, the fifth day of August, 1921, at Bath, Maine. Guptill has been in that blissful state of engagement for some period and it is a relief to his friends to hear that he has taken the final step. The Class extends best wishes to the bride and groom. Now that this affair is off his mind he is able to settle down to work and has associated himself with the bond house of Coburn, Kittredge & Co.

Among the attendants at the Institute of Politics, held at Williamstown, Mass., in August, was Myron E. Pierce whose special interest in international affairs caused him to register at the beginning of the session. He was accompanied by Mrs. Pierce, and save for one brief leave of absence from academic duties, both of them were in constant attendance on the public lectures and round table meetings throughout the month.

On July 12, the secretary received a call from Eugene H. Laws who was making a trip back to his old home from Northport, Washington. He reported that on account of the metal situation the smelter which is in his charge at Northport was shut down until business picked up and that in consequence he had taken his wife to Salt Lake City where he left her with her relatives while he came on for a short trip to his old home in Massachusetts. It was a matter of great regret to Gene that he was unable to attend the reunion. He would have shown up well in the heavyweight class, as he acknowledges tipping the scales at 230 pounds.

Harry Baldwin earned the favor of the automobilists when he took charge of the rebuilding of the Point of Pines bridge between Revere and Lynn, and pushed the matter through, by night and day shift, until its completion. This bridge is on the main artery of traffic for parties going north, and when part of it was burned in July, it became a very serious matter to the automobile public. To have rebuilt the bridge, according to the plans of the City of Lynn, would have taken considerable time, owing to the necessity of getting a special appropriation. The General Electric Co. stepped into the breach and offered to rebuild the bridge of wood immediately and not present the bill until the City of Lynn had made provision for its payment. Harry, being one of the bright spots in the General Electric Co. plant, was selected to push it through and he did it in about a fortnight and made a fine job.

Bradley Stoughton, since his resignation as secretary of the American Institute of Mining Engineers has resumed his practice as a consulting engineer, making a specialty of financial investigations and reports to bankers, investors, directors, trustees, and examining accountants on industrial plants, engineering enterprises and iron and steel plants. For the time being his address will remain: United Engineering Societies Building, 29 West 39th Street, New York City.

Mrs. Alice Peloubet Norton as editor of *The Journal of Home Economics* has reached international fame. She has recently begun work along her specialty at Constantinople College. The following account is taken from the Boston *Globe* of August 28.

"When the American College for girls on the European side of the Bosphorus reopens September 15, Mrs. Norton will begin the work she has been sent to Constantinople for — namely, establish a department of home economics which will serve as a foundation of a great school of practical arts for women in the Near East. For this purpose, the American Home Economics Association raised a fund of \$6,000.

Constantinople College's student body includes young women from different parts of Turkey, Southern Russia, the Balkan States, Greece, the Islands of the Aegean, Syria, Egypt, and often from many other countries — about seventeen nationalities. The language of the college is English, although each student is obliged to study her own vernacular in order to take part in the literature and education of her own country. Each student is expected to study English, her own language and either French or German.

FOUR BUILDINGS ALREADY ERECTED

For Constantinople College at the suburb of Arnaoutkey four up-to-date college buildings have been erected in beautiful grounds of fifty-four acres. The largest building was given by Mrs. Finley J. Shepard (Helen Gould), and contains administration offices, lecture rooms and living rooms for the faculty. Miss Olivia E. P. Stokes gave the building which contains the refectory. The science building was given by Mrs. Henry Woods of Boston, Mrs. Russell Sage gave the dormitory, and the power plant was given by John D. Rockefeller. The architects of the buildings were Shepley, Rutan & Coolidge of Boston. The college buildings were dedicated and occupied in 1914. The college is governed by American trustees with headquarters in New York. Among the members of the board are Miss Caroline Borden of Boston and Mrs. J. Malcolm Forbes of Milton. The president of the college is Dr. Mary Mills Patrick, who has had long experience in educational problems of the Near East.

Mrs. Norton is the daughter of the late Rev. Francis J. Peloubet of Auburndale. Mr. Peloubet, her father, died about a year ago at the age of 89. He was widely known as the author of International Sunday School Lessons. Mrs. Norton was graduated from Smith College and studied at Technology. She married Lewis Mills Norton, professor of chemistry at the Massachusetts Institute of Technology, who died a number of years ago. After the death of her husband, Mrs. Norton became a teacher in the Brookline High School and four years later took charge of the Department of Home Economics in Chicago Institute, which was founded by Mrs. Emmons Blaine of Chicago. During the war Mrs. Norton was connected with the United States Food Administration and also with the War Savings Division. She is the mother of two sons and three daughters. John E. Norton graduated from Massachusetts Institute of Technology and is now professor in bacteriology at Chicago University. Lewis Mills Norton is an accountant in New York. Her daughters are Mrs. George W. Swain of Chicago, Mrs. Edward H. Lorenz of Hartford, Conn. and Miss Margaret Norton, assistant in the library at Smith College. Miss Margaret Norton has received leave of absence from the library at Smith to accept the invitation of President Patrick to organize the library at Constantinople College. Miss Norton sailed early in August.

Mrs. Norton has visited some of the refugee camps with Miss Phillips of the Wellesley Unit. "The Turkish refugees," she says, "are living chiefly in the mosque courtyards. There are thousands and thousands of them — not refugees of war — but from the terrible fires.

"The Imperial University has become a co-educational institution. I found in the schools not only sewing classes that I expected, but cooking classes. One of the very interesting schools visited was coeducational, with Turkish boys and girls up to the age of seventeen years. Another school visited was of the vocational type. The students were enameling glass and doing various kinds of art work, but seemed to specialize on needle work. Here in Constantinople only a few women on the streets keep their veils over their faces. In the interior it is rare to see them without the veil. The most exciting things I have done were to step foot in Asia and wade in the Black Sea. The first was when I visited a school near Scutari. I took an Armenian girl as interpreter. This was all right, even for a Turkish school, though it would never have done to take a Greek girl. The trip to the Black Sea was on a little narrow-gauge railroad used chiefly for transporting coal. It took nearly three hours to reach the Black Sea, ten or twelve miles west of the Bosphorus."

On August 16 the secretary and Mrs. Locke answered the call of Cape Cod and Rutherford, by making a trip to Provincetown over the road and using Rutherford's

home at East Falmouth, as the center of operations. The old places were covered. One dinner was eaten at Terrace Gables where our old hosts, Mr. and Mrs. Draper, welcomed us and the head waiter was still on deck. The lobsters were just as good as ever. A call was also made at the Wianno Club upon host Skinner. The Club seemed to have entirely recovered from the '96 onslaught in June. The secretary also retrieved the copy of "The Cotton Trailers Blues" which was written by Bob Flood especially for the reunion, but in some unknown manner, went astray. In passing Buster Crosby's house he was found on a ladder daubing red paint on the house, and himself. He reported that, after the reunion was over, he sneaked home in the gathering darkness, and made his way in through a cellar window and his family did not realize that he had been absent.

Skinner reported that Ben Shepard enjoyed the Wianno so much, at the time of the reunion, that later on in the summer, he and Mrs. Shepard made a second trip to the Club.

Mr. and Mrs. Rutherford were prodigal in their hospitality and the secretary can only say that any '96 man passing by their way should not fail to call.

In September the secretary made a trip in the opposite direction and called upon Jacobs, in Burlington. On entering the city an aeroplane passed overhead and it was later learned that it was Jacobs taking his first flight as a passenger. Jacobs bought one of the old Burlington mansions last year and has been busy getting installed therein. Part of the summer he spent on geological work for the State, covering the area north of Lake Willoughby. Mrs. Jacobs has been in rather poor health during the summer but was on the gain. He appears to be permanently located as Professor of Chemistry at the University of Vermont.

It is with much regret that the secretary announces the death of Frank M. Smalley which occurred on Monday, August 15. Smalley came to Boston, on August 11, for preliminary consultation with Dr. Rockwell, stating that he was suffering from some internal trouble. On the following day he went to the hospital for a thorough examination which did not reveal anything beyond a constriction of the intestine which was easily reduced. He appeared to be getting along very satisfactorily until Sunday night when he began to suffer great pain, which was the beginning of a rapid collapse which culminated in his death in a few hours. This condition was the result of a hernia of the intestine which broke down and ruptured into the abdominal cavity, causing peritonitis of a very virulent nature. The following account is taken from the *Savannah Morning News* of Tuesday, August 16:

"Dr. Frank N. Smalley, chief chemist of the Southern Cotton Oil Company and a well-known Savannahian, died early yesterday morning, at the Homeopathic Hospital, Boston. Death was due to peritonitis, which set in following an operation on Saturday.

Mrs. Smalley and their two sons were with him when he passed away. They have taken the body to the home of Mrs. Smalley's parents, Mr. and Mrs. Merritt Smith, at Framingham, Mass., and the funeral will be held Thursday afternoon from there. Interment probably to be at Edgell Grove Cemetery at Framingham.

Expressions of regret were general in Savannah when the news was learned, through telegrams from Mrs. Smalley to his associates here. Messages of condolence and sympathy were sent by the Southern Cotton Oil Company, the Rotary Club, of which he was a director and active member, and many of his friends. Floral tributes followed in time for the funeral. It is expected that Edward S. Roberts, representing the Rotary Club, will attend the services, as he is expected to reach Boston today and a telegram telling of the death of his brother Rotarian has been forwarded to him.

Dr. Smalley was born in Westboro, Mass., in 1874, being 47 years of age at the time of his death. He received his education in Massachusetts, and graduated from the Massachusetts Institute of Technology in 1896. A few months later his services were secured by the Southern Cotton Oil Company and he came to Savannah to enter its employ as one of its chemists. Some years ago he was given full charge as chief chemist of all of the laboratories of the Southern Oil Company. Well known and highly esteemed in the cotton oil industries, his research work in his field caused his alma mater to confer upon him the degree of doctor of philosophy. Dr. Smalley led an active life, and had wide interests. He served as a non-commissioned officer in the United States army shortly after the Spanish American War and saw service in the Philippines. He was active in the Rotary Club, and was deeply interested in the Bethesda Orphanage, being a member of the board of managers. He was a member of three chemical societies, the Society of Chemical

Industries, the American Chemical Society and the American Institute of Chemical Engineers.

Dr. Smalley left Savannah last week, accompanied by Mrs. Smalley. His two sons, Frank N. Smalley, Jr., and Leonard Smalley, left later to make the trip by automobile, and arrived just a short time before their father's death.

Besides his widow and children Dr. Smalley is survived by his parents, Mr. and Mrs. F. Smalley of Massachusetts; a sister, Miss Grace Smalley, and a brother, R. M. Smalley."

Rockwell put off his vacation for a week when Smalley came to Boston but, since the latter appeared to be getting along so nicely in the hospital, Rockwell started off for Harriman, Tenn., only to learn, on arrival, in Savannah, that Smalley had passed away. Rockwell spent a couple of weeks at Harriman and then came back by rail to Washington and spent another week with his parents in Upper Montclair, N. J. He reports that he saw Billy MacAlpine late in July when the latter was east attending the final illness and death of his mother. He reports that MacAlpine was a bit thin in body and face but had lost none of his genial expression.

In August the secretary made a trip to the Malden plant of the Boston Rubber Shoe Co., and ran across L. H. Goodhue who has now been advanced to the position of technical superintendent of the Malden factory. Goodhue could not supply any very important information regarding himself, except that he had just returned from attendance at the Plymouth pageant and had two children in the high school. He says his job keeps him busy.—Charley Paul is still digging away on the thirty-five million dollar flood prevention job on the Miami River in Ohio. This consists of five large earth dams for controlling the river floods and channel enlargement work through ten cities and towns in the Miami Valley, including Dayton and Hamilton, Ohio. The construction work is still under way and it is expected that it will be nearly completed by the end of the season of 1922. Paul has recently received an advance in position. The following is taken from the *Dayton Herald* of August 31.

"No change in policy or in the organization will result following official termination of the services of Arthur E. Morgan, chief engineer of the Miami Conservancy district, Charles H. Paul, his successor said Wednesday. Mr. Paul will officially assume the office of chief engineer Thursday. He has, as a matter of fact, been attending to most of the work of the office for several weeks. Mr. Morgan some time ago dropped most of his work with the district to engage in Antioch College work. 'The only changes are those which will naturally come later, due to finishing up the job,' the new chief engineer said. 'Mr. Morgan left things in such shape that it will be comparatively easy to pick up and carry on his work. We propose by the end of this season to have things so that people of the valley need have no further fear of high water. By the end of the season of 1922 we believe the entire work will be practically completed.'

Mr. Paul joined the organization of the Conservancy district in 1915, coming from the West, where he had been engaged for twelve years in government reclamation work. During this time he had charge of construction of several dams, reservoirs and irrigation projects. His last work there was building the Arrowrock Dam in Idaho—the highest dam in the world. He was previously employed by the Metropolitan Water Works of Boston in the construction of its water supply projects. Since coming to Dayton he has been assistant chief engineer of the district with special charge of construction. Mr. Paul received his technical training in Boston Tech."

Another item from the *Dayton News* of September 3 is in the form of an editorial, as follows:

"The direction of the flood prevention plans in the Miami Conservancy district has passed to the hands of Charles H. Paul, who becomes the chief engineer, succeeding Arthur E. Morgan. Mr. Paul needs no special commendatory expressions, because his experiences and successes have been so many that they testify to his fitness for the position in more eloquent language than mere words either spoken or written. It was Paul who built the famous Arrowrock Dam in the West. But his reputation as an engineer does not revolve about any particular accomplishment. In the broad field of engineering he has been tried sufficiently to attest to his fitness for the task which comes to him with Mr. Morgan's assumption of the presidential duties of Antioch. The flood protection plans have progressed to a point where it may be said safely that there remains only for the dry reservoirs to be finished up before complete protection is guaranteed. This has been a gigantic project. Mr. Morgan's genius set the wheels to moving. Mr. Paul's ability

will carry on to a successful conclusion the work already so ably begun and so successfully prosecuted."

Herman Hormel has resigned his position as chairman of the Republican City Committee of Boston and has been proposed by Senator Lodge for the position of Surveyor of Customs, at Boston. Herman Hormel was born in Boston, October 15, 1873, was educated in Boston Latin School and Massachusetts Institute of Technology. He was associated with the firm of W. F. Farrington & Co., commission brokers of Boston. He has served eighteen years as a member of the Republican State Committee of Massachusetts and had charge of the speakers' bureau from 1905 until 1911. He served several terms in the Massachusetts Senate and at present is chairman of the Republican City Committee of Boston.

Entries in the grandfather Class of '96 to date are as follows: Cleveland Crosby Woodward, son of Cleveland Landon Woodward and Emily Crosby Woodward, and grandson of Buster Crosby, was born November 8, 1920.—Richard O. Elliot's daughter has a daughter who was born in March, 1921, the exact date not having yet been ascertained.—Lydia Elizabeth White, daughter of Marian Sanderson White, and Maurice B. White, and granddaughter of N. H. Sanderson, was born December 5, 1920. The returns to date, therefore, show Crosby in the lead.

Lythgoe was seen, one morning in the subway station, and reported that he is kept busy analyzing samples of home-made moonshine and hooch. His work in this line appears to be on the increase.—Billy Anderson reports that the Ferro Concrete Construction Co. of which he is president, in Cincinnati, has constructed new model shops and storage yards which have been found to be much needed in connection with their ever increasing operations.

The Class Book is beginning to get under way. The secretary has received, during the summer, several letters from the fellows, expressing their ideas on this subject. They are almost unanimous in their belief that the Class Book should be a modest inexpensive volume, giving brief, but at the same time, comprehensive histories of the men and that we cannot do much better than to follow more or less along the line of "Who's Who." They are united in their belief that we ought to save all possible money and effort in connection with the Class Book and should make our big effort on the '96 Class scholarship fund which was inaugurated at the reunion. No special effort has been made during the summer to secure additional pledges but in spite of this the total to date is over \$5,000, some of which has been already paid in. It would seem to be wise to do one thing at a time and thus get the book matter out of the way before tackling the scholarship fund. One man writes rather strongly on his views of book versus fund. He wrote as follows to Charley Lawrence:

"I want to lend my help to you in carrying out your grand plan for a '96 scholarship instead of spending money for a lot of foolishness, when so sorely needed by some deserving student. You did nobly in turning the sentiment from a selfish purpose to a noble one. I did not feel like subscribing one dollar to the book, but shall endeavor to make it \$100 for the scholarship and, unless things go wrong with me, you can count on me for that. I am going to ask to be allowed to defer payment for four years, when my children will be grown up."

Another man writes to Lawrence to the effect that while he is in thorough sympathy with the movement he is now limited in income and not in a position to contribute, but that he has made full provisions so that, in the event of his death, provision will be made for the scholarship fund.

The following changes of address have been received:

William H. Whitten, Jr., care Charles W. Hills, 1523 Monadnock Building, Chicago, Illinois; John E. Lonngren, The Indian Steel Wire Products, Jamshedpur Via Tatanagar B N R (Ltd.) Bengal, India; Benjamin Hurd, Nonquitt, Mass.

1897

CHARLES W. BRADLEE, *Acting Secretary*, 54 Canal Street, Boston, Mass.

Thomas C. Atwood writes:

"Dear Classmates: It may interest some of you to learn that I am in this neck of the woods (Chapel Hill, N. C.), engaged in designing and supervising the erection of a

number of new buildings for the University of North Carolina together with a lot of side lines in the way of heating systems, water supplies, sewage disposal, etc., too numerous to mention. The University of North Carolina campus is one of the most beautiful I have ever seen, with great oaks providing plenty of shade and lots of room (500 acres) to spread out in. I find congenial souls in the faculty, even one or two from Tech.

"I have a fine force of engineers and architects under the name of the T. C. Atwood organization and if you want a big job done send it to me. I only refuse the small ones (but then only when they are *too* small). I look forward now with great interest to the coming of the REVIEW. It seems so good to have some '97 news in it. Hurray for the executive committee and its propaganda."

John P. Ilsley writes that he has been appointed New England manager of Wing & Evans, Inc., 89 State Street, Boston. They are agents for the Solvay Process Company, manufacturers of soda ash, caustic soda and modified sodas. He adds, "I hope that when any of my classmates are in this vicinity they will drop in to see me."

We learned from the newspapers that our classmate W. C. Potter was elected president of the Guaranty Trust Company, on October 5, 1921. He is a mining engineer by profession. As a member of the firm of Guggenheim Bros., he has been identified with many of their activities in Mexico and the Southwest. The Fremont, Neb., *Tribune*, October 10, says:

"Billy" Potter is an interesting type and he has had an interesting career. He had none of the airs of the effete easterner; he radiates the virility of the western plains and mining camps. Although coming of a banking family — his father is Edwin A. Potter, a leading Chicago banker — Billy contracted a love for western ways and western people when spending boyhood summers on his father's ranch in Idaho and he decided to go in for some line of work which would take him out west. Therefore, he attended the Massachusetts Institute of Technology, and graduated with the degree of Bachelor of Science in Mining Engineering.

"The first thing the graduate engineer did was to make for the West and for months he, with only one companion, drove a team all over the Southwest, exploring unknown tracks and here and there examining mining properties. One of his early jobs was superintendent of the Liberty Bell mine in Colorado, 12,000 feet above sea-level, where snow-slides occasionally enlivened operations."

Ethan H. Howard writes:

"I am still growing fruit in Niagara County, but the results this year have not been up to those of last. However, I fared better than many of my neighbors. Am enjoying my usual health and hope to be on hand next June for the twenty-fifth reunion.

My only son Edwin, who was I think the second baby born to the Class of '97, is to be married the fifteenth of October to Miss Virginia Oatman of Niagara Falls. I think that is the only item of interest in this particular neck of the woods."

Allen W. Jackson spent the summer in England and France with his daughter Harriet, returning just in time to install her as a freshman at Vassar.

1898

A. A. BLANCHARD, *Secretary*, M. I. T., Cambridge, Mass.

George W. Craven has been elected President of the School of Mines of Montana University thus adding another to the considerable number of '98 men who are college presidents. Babson as Chairman of the Board of the Babson Institute comes nearly into this illustrious class.

Lansing it will be remembered is on the Tech Corporation. He has a son at Tech. That Lansing does not let any grass grow under his feet is evidenced by the following list of his activities since the opening of the war ending with president and general manager of a New York industrial company.

March 1917, Engineer Department, Council of National Defense, Washington, D. C.
 June 1917, sailed to France to represent the Massachusetts Institute of Technology, in looking after the welfare of its graduates and students.

August 1917 to August 1918, Assistant Director and Business Manager of American

University Union in Europe, with headquarters in Paris and branches in London and Rome.
 October 1918, Works Manager Metz Company, Waltham, Mass., building aeroplanes for the Government.

1919-1920, with Lunken Window Co., Cincinnati, Ohio.

1920-1921, Consulting Illuminating Engineer New York.

July 1921, President and General Manager of York Metal and Alloys Company, Room 803, 56 Pine Street, New York.

The following letter from Paul Johnson speaks for itself:

"Dear Blanchard: Monday afternoon and evening Frank Coombs and his wife visited us and we had a miniature Class reunion. As far as I know, Frank and I are the only members of the Class living in California. They live in San Francisco and are down here for a vacation. I treated them to a concert by radiophone from Los Angeles in the evening. Radio is now my hobby. My son and I have been at it for the last two years. The selling part is only incidental, and I undertook it in order to give the boys in this vicinity better service. However, Mount Wilson Observatory is one of my best customers. My son, Seymour, is taking the Junior College course at the Principia in Saint Louis and hopes to enter the sophomore year at Tech next fall. Has any one in the Class got a son in Tech yet?"

No, you are not as well informed as to '98 men in California, or as to '98 offspring, as you might be. The secretary hopes to compile statistics sometime, but refrains from trusting to his memory in giving a list now because he would make omissions.

1899

W. MALCOLM CORSE, *Secretary*, 603 Elm Street, Westfield, N. J.

An announcement has been received telling of the marriage of Paul De Blois Loughton, '99, to Miss Cora Rutherford on Wednesday, October 12, at Windham, Conn.

Herbert Vanderhoof, an advertising man, died August 7, at a health resort in Winnetka, following an illness of more than a year. He was forty-five years old.

Born in St. Paul and educated at the Boston Institute of Technology and the University of Chicago, Mr. Vanderhoof began his career as a newspaper man in Portland, Me. Later he worked on journals in Worcester, Boston and Chicago. In 1906 he became secretary of the Western Canadian Immigration Association. For a decade he was advertising representative of various Canadian railroads. He founded *The Canada Monthly Magazine* and was honored by having the town of Vanderhoof, B. C., named for him.

Five years ago the advertising firm of Vanderhoof & Co., of which he was president, was established. Meanwhile the war came on, and Mr. Vanderhoof served as a member of the idea committee of the National Art Service League and was active with the British recruiting mission here. He was a member of the American Protective League, the University and the Chicago Yacht Clubs, the Psi Upsilon Fraternity and the Manitoba Club of Winnipeg. He is survived by a widow, a young daughter, Mary, and his mother.

1900

GEORGE C. GIBBS, *Secretary*, 25 South Street, New York, N. Y.

The secretary's letter of salutation has started on its way to everybody in the Class, and with it a fine letter from Arthur D. Little, President of the Alumni Association. The Class is honored by this letter; but there is also a potent reason behind it. Just as the secretary took over the Class's affairs, he was greeted with the surprising news from the alumni office that *only* seventy-five (75) men in the Class of 1900 are members of the Alumni Association. The secretary expects to note in the next letter to the REVIEW that this figure has been increased. Therefore the Class letter just sent out is accompanied by Mr. Little's letter, and both mailed from the alumni office.

We numbered about 192 men, graduated in 1900, but the *Register of Former Students* credits our Class with 350 names; we accept them as all "good and true" members of the Class. Therefore *Class*: join the Alumni Association, and "we're off."

Bowditch is spending part of the present month in California. He expects to gather a bit of 1900 "moss" while there, from the fellows living in the State, and let the secretary revive it.

One more: Note the following: Mr. Jacob Charles Krehl announces the marriage of his daughter, Grace Emilie to Mr. Frederick Vogel, on Thursday, the eighteenth of August, 1921, at Girard, Ohio. Congratulations.

Gibbs and Fred Cook worked together at the Brown Hoisting Machinery Co., at Cleveland, Ohio, right after leaving Tech. Their first reunion occurred in Paris, during 1919. This incident lingered in Gibbs' mind afterward. While dining, a *garcon* asked Fred if he would have any water to drink, with the reply: "*jamais dans ma vie.*" It's hard to return to civilization.

CHANGES OF ADDRESSES

Raymond Davis Borden, Secretary, The Clark-Leu Co., Albany, N. Y.; Perciva Clow, 191 Highwood Avenue, Ridgewood, N. J.

1901

A. W. ROWE, *Secretary*, 295 Commonwealth Avenue, Boston, Mass.

Your new secretary takes occasion to greet all members of the Class of 1901 on this his first formal functioning in his present official capacity. He also asks that you be indulgent with him in the performance of his duties until a sufficient amount of time has elapsed for him to become familiar therewith.

In accordance with the usual practice a data sheet was sent out to all members of the Class and not a few of these have been returned to the secretary. Some of the information contained therein is of absorbing interest, but by a curious fatality those sheets bearing the most poignantly exciting information are not signed. Whether this is ascribable to shrinking modesty on the part of the writer or is the result of the sound business training which the last twenty years must have given, your secretary is unable to say. The following priceless bits of information, however, have been culled: Horace Johnson, once of Newburyport and for a brief space of time a jewel in the crown of 1901, is vice-president of C. Brewer & Co., and is situated in Honolulu. As Horace has been there since leaving Technology this information may lack freshness, but with the strong urge to travel which is growing upon us all some member of the Class may visit our far-Pacific possessions, in which case Horace stands ready to offer him the freedom of the Islands. This includes, I believe, all of the festivities which have been popularized in late years by the musical comedy stage. — From Freddie Boyd I learn that it is reported that Joe Evans sent his pig to the West Indies. Assiduous inquiry through diplomatic channels on the part of your secretary fails to confirm this report. — R. H. Brown is executive-secretary of the Houston (Texas) Anti-Tuberculosis League where, in his words, a good live campaign against tuberculosis is being carried out in one of the liveliest towns in the United States. A potential element of contradiction is courteously ignored. — Charlie Campbell is still in charge of the Red Cross Institute for the Blind in Baltimore. They are handling men who were blinded during the War. Charlie writes that the most outstanding feature of his work is the definite optimism of these young men, so severely handicapped for normal pursuits. — From one member of the Class I received a very interesting communication. He states that he has paid Class dues for a number of years and he is now interested to know what he gets out of it. To your secretary this seems a perfectly fair question. While the amount involved is a small one the total of many such small payments makes an appreciable sum. Replying then to him and to others who obviously hold the same point of view, your secretary would say, first, that in order to get information for these notes, letters must be sent out to the Class and a certain expense entailed for clerical service; second, there arise from time to time certain requests for funds from the Class as a unit which can be met if there is a modest balance to the credit of the Class; third, the mere fact of paying in to the Class treasury a small but definite amount of money each year keeps the individual in touch with an organization which should and in many instances does mean a good deal on the side of one's life devoted to sentiment. You do not lose touch with your Class if you maintain even so tenuous a connection as this implies. Now, of course, it is frankly

a question whether one can pamper one's sentiment, — not sentimentality, please note — to the extent of \$2.00 a year. That remains a decision for each individual to make.

Another member of the Class, under the caption of wife's name on the data sheet, writes ditto and ditto and ditto. Whether this is to be inferred as indicating a polygamous tendency or that God or the divorce courts have smiled upon him frequently, the secretary is unable to say. It connotes, however, an interesting life. Another man writes for more details concerning the twentieth anniversary. It will be the privilege of your secretary to send out later a circular letter conveying this information. — Dorsey writes, under items of interest, that he has the best crop of vegetables on the street. This bespeaks a philanthropy on his part that is wholly laudable, but your secretary wonders if another year Dorsey will not spend his efforts in stimulating his neighbors to do the best that they can. — C. W. Danforth writes that one by one his various athletic activities have become circumscribed and he is now playing croquet. The secretary, on request will furnish a list of amusements suitable for the senile, drawn from his own ripe experience. — Arthur Eveland is in Mexico — he says, temporarily. One wonders why. — Denny Haley writes that he has a clear conscience. Does this argue training or inhibition? — Ellis Lawrence and his partner, Billy Holford, have taken over the architecture of the State of Oregon. Their affiliations are very extensive. — A. B. McDaniel, formerly principal engineer of the Construction Division of the Army, has been appointed Educational Specialist on the Advisory Board of the General Staff of the Army. — Billy Newlin was decorated with the Cross of St. Sava for his work with the Reconstruction Commission in Serbia. It is to be hoped that Billy will wear this at all Class reunions. — D. L. Ordway strikes a responsive chord in the breast of your secretary when he writes that he is still a bachelor. We are few and choice.

In conclusion, your secretary wishes to acknowledge the many pleasant words from classmates who still apparently cherish tender memories of his undergraduate activities as Class treasurer. He hopes that all '01 men who have not sent in the data sheets will sit down promptly and write long accounts of the many interesting happenings for which other members of the Class are waiting with palpitating interest.

1902

FREDERICK H. HUNTER, *Secretary*, Box 11, West Roxbury, Mass.

BURTON G. PHILBRICK, *Assistant Secretary*, 585 Boylston Street, Boston, Mass.

The outing of the Class on Saturday, June 25 proved, in spite of the somewhat small attendance, very enjoyable for those who did attend. Going by auto from the Engineers' Club, the bunch reached Suntaug Lake shortly before three, finding Rob Whitney already there, and Luke Collier from Beverly arrived shortly afterwards. Ball teams (they cannot be designated as "nines") were chosen with Whitney and Collier as captains. A furious battle was waged for five innings, when it was suspended (not on account of rain or darkness) but for other reasons, which we will leave to Whitney to explain. Collier's team claimed the victory with a score of 16 to 12, which is probably correct although Whitney's cohorts declare that it was really 22 to 18 in their favor. The heavy hitting of Whitney and the fielding of Robinson at shortstop were the outstanding features for the "Tanners," while Philbrick's steady work at first, and Collier's pitching, were the star performances of the "Coal Diggers." The Class secretary distinguished himself by once batting the ball outside the diamond for a base hit.

After the ball game had been suspended, owing to the exhaustion of the contestants and certain supplies, the party rested and in due time gathered at a table in the corner of the large dining room of the Wardhurst Club to partake of one of the Club's famous chicken and lobster dinners. During the feed, the annual Class meeting and election of officers was held with the following results: President, Charles W. Kellogg; vice-president, Boston District, Robert F. Whitney. The selection of Edward S. Baker and Kenneth Lockett as vice-presidents for the New York and Chicago Districts respectively was unanimously confirmed. In the election of secretary, the present incumbent declined to accept another five-year term, stating that the election of the secretary should coincide, as originally intended, with the five-year anniversaries of the Class, rather than having

it come, as now, on one of the interim years. The upsetting of the original schedule was due to the resignation of the previous secretary after having served four years. Hunter accepted a re-election for one year to set the choice of a Class secretary for another five-year term over to the 20th reunion next June. Burt Philbrick was unanimously re-elected assistant secretary for one year. The thanks of the Class was extended to retiring President Arthur H. Nickerson who had recently removed to New York; also to Murray Walker and Fred Matheson whose loyal services as vice-presidents for Boston and New York respectively has been much appreciated. Following the dinner, members enjoyed the dancing and there was impromptu singing which was enjoyed by some, at least, of the other guests of the Club. The party broke up about ten P.M. returning to Boston and other points by auto.

Geromanos, our world girdling tourist, returned to the United States with his family in August after a trip of sixteen months. Since the report in the last issue of the REVIEW, they have been in Switzerland, France, Belgium, Holland, Germany, Denmark, Sweden, and Norway. In the latter country they travelled far enough north to see the midnight sun. Returning, they visited Scotland and England. On reaching this country, Gere went to his summer home in Harpswell, Maine, staying until after the first of October. He has now taken up his residence in Brighton, his address being 225 Chestnut Hill Avenue.

Prof. Philip R. Whitney of the University of Pennsylvania, after spending the summer at his cottage on Nantucket Island, made a trip to Vermont where he climbed Mt. Mansfield, the highest peak in the State, before returning to his duties in Philadelphia. Whitney has recently been promoted to the full grade of Professor in the Department of Architecture.

In an article about the Rhode Island State College, a recent issue of the Providence, R. I. *Journal* has the following in regard to our classmate, R. L. Wales: "Prof. Royal L. Wales, Dean of Engineering, has returned from his furlough. Professor Wales, who has for many years been Dean of Engineering at the State College, was requested by the United States Bureau of Standards to aid in solving problems of airplane engine carburetion at high altitudes with Government experts at Washington. Last November he was granted an eight months leave of absence from the College and went to Washington last January.

His work in the department of automotive power plants of the Bureau of Standards included a study of the effects of various altitudes on the proper and continuous operation of the various types of airplane motors used during the past war. The proposition dealt directly with the difficulties of engine operation encountered by army aviators at high altitudes. The object was to attain higher altitude records with improved engines and planes. For the past eleven years Dean Wales has occupied a prominent place in the teaching personnel of the college. He is also well known among several manufacturers in this State as an adviser and power plant authority. He is a graduate of Massachusetts Institute of Technology where he received the degree of Bachelor of Science in 1902. For the two years following his graduation he served as instructor in that institution. During 1904-5, Dean Wales was instructor in Mechanical Engineering at the University of North Carolina, and in 1905 he was appointed Assistant Professor of Experimental Engineering at the University of Tennessee, where he remained for four years. Twelve years ago he was appointed to the Rhode Island State College staff."

Word has reached us of the death of Arthur S. Littlefield, who passed away suddenly of heart disease in Baltimore on August 14. Littlefield, whose home was in Winchester, Mass., had been in the West for a number of years in railroad construction and other lines of work. He will be remembered by his fellow students of our freshman year.

1904

HENRY W. STEVENS, *Secretary*, 92 Marengo Park, Springfield, Mass.

Owing to the fact that the 1921 reunion was not held until after the forms had closed for the July issue of the REVIEW, it was impossible to publish any account of the reunion in that issue.

Contrary to usual conditions the day set for the start for the big time at Wianno

was bright and fair and no rain fell. At about noon, June 26, the clan began to arrive at the Engineers' Club, and by two o'clock the following men were on deck: Hartshorne, Munster, Russell, Haynes, Haraden, Sweetser, Sutton, Comstock, Mert Emerson, Homer George Sanborn, Hayward, Haley, Whitmore and Stevens.

After lunching and gossiping for an hour or so, parties were formed and all started by auto for Wianno. Dick Hartshorne left his car parked across the street from the Club, and when he was ready to start, found that some one had been there since he had, and his suit case was missing. The loss was immediately reported to the police who offered sympathy, but up to date have produced nothing else. Fortunately, the thief neglected to take Dick's golf clubs, so he was able to enjoy the outing.

No other mishaps occurred, and by seven o'clock everybody had arrived at the Wianno Club, which looked just as good to the crowd as it did last year. Herb Kalmus, Curtis, Read, Buck Langley and Anthony were waiting at the Club when the rest of the crowd arrived. Jack Draper was picked up at Scituate, and Stebbins was met at West Barnstable, having come from Fall River by train. After dinner Dennie and Holcombe arrived from Boston, and late in the evening Ed Parker arrived, having driven all the way from Portland, Maine. It being very dark when Ed reached Cape Cod, he had some trouble in locating the Wianno Club, but was guided by the noise for the last three miles and eventually arrived in good shape.

We had an entire cottage assigned to us, and so did not disturb other guests. A large living room provided a splendid gathering place and Friday evening was spent in swapping yarns, playing cards and a general "Old Home Week" until a late hour.

Saturday morning dawned clear and bright, and after breakfast everybody rode to the ball grounds for the annual ball game, after welcoming Cy Ferris, who arrived just before breakfast.

Due to the generosity of Zeno Roberts and Haley, the Class is now equipped with a full set of gloves for baseball and they were christened at this game. Bob, Dennie and Sanborn were chosen captains and picked their teams, which lined up as follows:

Sanborn, p	Dennie, p
Curtis, 3 b	Stevens, ss
Haynes, ss	Draper, r f
Emerson, r ss	Stebbins, 3 b
Ferris, 1 f	Russell, 2 b
Homer, c f	Holcombe, 1 f
Comstock, 2 b	Kalmus, 1 b
Langley, c	Read, 1 f
Sutton, 1 b	Munster, c f
Hartshorne	Sweetser, c
Parker, r f	Anthony, r f
Hayward, 1 f	

It will be noted that there were plenty of fielders, and they all had plenty to do. Whitmore officiated as umpire, and handled the game like a big leaguer. Haley was offered a job as umpire, but declined, as he remembered a previous experience. The game was hotly contested, and space prevents the mention of more than a few of the more marvelous plays. Curtis, assisted by the rest of his team, made a triple play. Gus Munster, assisted by Draper, Stebbins, Anthony and Stevens, succeeded in making five errors on one hit. Dan Comstock caught a pop-fly on second base, which he insists would have been a home run if he had muffed it. Charley Homer dropped twenty pounds chasing flies, but picked the pounds up again at dinner. Mert Emerson ruined a beautiful in-shoot pitched by Dennie. Mert hit the in-shoot with his anatomy instead of with the bat. Stevens amazed the crowd by fearlessly stopping a liner which had been dodged by four other members of the team. It is thought he was asleep at the time and was unable to dodge it himself. The game was called at the end of the fourth inning because of the complete exhaustion, of the players. The score was announced by the umpire as 9 to 9 in favor of both teams. It is thought by both teams that Whit was playing it safe in making this announcement, as each team knows of at least 30 runs scored.

The early finish of the ball game permitted the golf enthusiasts to get under way. There were all kinds of golf. The best recorded was turned in by Read, Haraden, Hartshorne and Haynes, who played foursomes Saturday morning and afternoon, Haynes and Hartshorne being 3 up for the day. Their medal scores were Haynes, 92, 93; Hartshorne, 94, 97;

Read, 93, 95; Haraden, 96, 97. The 1921 golf championship is accordingly divided among them.

Langley and Curtis had the tennis to themselves, Langley winning three sets, 6-0, 6-3, 6-2. Buck then proceeded to annex the doubles championship by defeating Curtis and Stebbins 6-2.

Saturday afternoon was occupied by each individual according to his own inclinations. During the afternoon, Groves arrived, completing the party.

After dinner Saturday everybody met in the living room at the cottage and the real re-union was held. The old days at the Stute were recalled, letters were read from many classmates unable to be present, and every minute was thoroughly enjoyed.

The success of this reunion was due to Dan Comstock, who engineered it and made it a success, and a slight token of appreciation was presented to him. The session was prolonged to a late hour as nobody seemed willing to break it up.

Sunday morning was cloudy and true to the tradition that no '04 gathering ever escaped rain at some time, a heavy shower about noon drenched the golf players, but failed to dampen their devotion to the game. Soon after noon the exodus began, and by four o'clock all had departed and another successful '04 reunion had passed into history.

The 1921 reunion was attended by a larger number than any of the previous ones, there being twenty-seven present. Unfortunately, there was no official photographer appointed, and although there were plenty of cameras among the crowd, no one thought to get the crowd together and so no pictures were taken. It was decided to hold the 1922 reunion at the same place, and everybody is already looking forward to next June.

The roster for 1921: Ferris, Dennie, Hartshorne, Munster, J. H. Draper, E. H. Russell, Jr., Haynes, Haraden, Sweetser, Kalmus, Sutton, Haley, Comstock, Parker, Stebbins, M. L. Emerson, Homer, G. W. Sanborn, Anthony, Langley, Read, Curtis, Hayward, Groves, Holcombe, Whitmore and Stevens.

High honor has again come to our classmate Dick Hale, when he was placed in command of the Field Artillery of the Massachusetts National Guard, as related in the following clipping from the *Boston Traveler*:

"Col. Richard K. Hale of Brookline was today appointed by Governor Cox as brigadier-general of the first field artillery brigade of the newly organized Massachusetts national guard to succeed John H. Sherburne of Brookline, resigned.

Colonel Hale enlisted in battery A, field artillery, November 24, 1902, and served as a private, corporal, sergeant. He was commissioned a first lieutenant of the battery October 22, 1908, and was made captain February 13, 1913.

He was made major of the first field artillery March 2, 1916, and lieutenant-colonel June 28, 1917. He entered federal service July 25, 1917, as lieutenant-colonel of the first regiment, field artillery, and served during the Mexican border trouble in 1916 and during the world war, when the regiment was known as the 51st.

He was detached from the regiment February 27, 1918, and assigned to "G. 1" (administration) headquarters. He was assigned as assistant chief of staff, second army corps, March 18, 1918, and in a similar capacity at staff headquarters, the American embarkation centre, February 3, 1919. He was assigned as chief of staff of the 26th division in March of the same year.

While in service abroad, he attended the general staff college, from November 16, 1917, to February 11, 1918. He was commissioned a colonel in Massachusetts national guard, retired list, November 30, 1920. He now holds the commission of colonel in the officers' reserve corps."

It is with the deepest regret that the secretary is obliged to record the death of Merton Leslie Emerson, Jr., who passed away at Duxbury, Mass., on July, 20, 1921. He was eight years of age and was ill for only a week.

Our Class surprise-package, "Volts" Ovington, has produced another masterpiece, as is evidenced by the following clipping from the *Boston Traveler* of October 15, 1921:

"Earle L. Ovington, Boston's own world-famous aviator, the first man to fly around Boston light and the first airman to fly over the State House dome, which he did June 15, 1911, is at present at Hollywood, Cal., where, as is his usual custom, he is doing something to challenge public interest.

This man is so many-sided and does so many things so well that it will be no surprise to his friends to learn that he has devised and built a one-room bungalow which, for beauty, convenience and all-round desirability in housekeeping and homemaking, is the very

last word in architecture. For a few days the completed bungalow was thrown open to the public for inspection. So attractive was this innovation in housemaking that it finally required forceful opposition and policemen to stop the stream of visitors bent on inspecting it. There is a rumor that Mr. and Mrs. Ovington may be in Boston awhile this winter.

We hope that the rumor of the visit to Boston may prove to be a true one, and that we may be advised of his coming beforehand.

1905

GROSVENOR D. MARCY, *Secretary*, 377 Broadway, Boston, Mass.

CHARLES W. HAWKES, *Assistant Secretary*, 246 Summer Street, Boston, Mass.

"Vital statistics" naturally come first in Class news, in point of interest and in honor of position. There has been a falling off in items of this kind the last few years, whether because every one is pretty well married up or on account of war conditions would be hard to tell. There are three very interesting items this time, however: Miss Margaret Holmes Whipple and Robert Keep Clark were married in Wilton, Connecticut, on September twenty-seventh. They will be at home at 1615 Ridge Avenue, Evanston, Illinois, after January first.—Mr. and Mrs. George Merrill Bartlett announce the arrival of Thomas Loveys Bartlett, on September 20, at Camden, N. J. Best wishes from all of us attend each happy event.—Miss Edith Lillian Mary Belchem, of Ewhurst, Surrey, England was married to Harry Walker Donald at Staten Island on September 12. They will be at home after November 15 at 236 Bay State Road, Boston, Mass.

New honor comes to our Class in the election of Dr. Charles H. Clapp to the Presidency of the State University of Montana. Charlie notified the secretary of the big event in the following characteristic way.

"Dear Grove: I am alive, I can't say I am well, since I have just accepted a lot of new grief by agreeing to take over the Presidency of the State University of Montana on September first. I shall regret giving up the work at the School of Mines which has been growing rapidly in numbers and influence and shall miss my close association with mining that I have had here in Butte. So you see I must be weak in the head and hence not well to take on more administrative work. However, here's hoping! With the best wishes, Yours in '05, *Charlie Clapp*."

Our earnest plea for news items contained in the circular letter on alumni membership brought in the following:

IDAHO POWER COMPANY
Boise, Idaho

"I received your dodger yesterday relative to members of the Alumni Association. So far as I know I have kept in good standing in the Alumni Association since I left Tech as I have always received the TECHNOLOGY REVIEW. Tech men in these parts are quite scarce and the REVIEW is about the only means I have of knowing what is going on.

I have been making a valuation of the Idaho Power Company property for presentation to the Public Utilities Commission during the past three years, the last six months of which we have been actively engaged in presenting our case to the Commission. Henrici, '06, is engaged by Boise City which is a protestant in the case and I have had some very interesting chats with him relative to Technology men and their doings as well as some quite interesting scraps concerning valuation matters.

I always look to the 'News of the Classes' the first thing when I open my REVIEW and I presume that I should criticize myself for not being more communicative, for if all of the '05 men had been like me during the past sixteen years there would have been little news. I am sure that if I should come in contact with any of the '05 fellows who are not members of the Alumni Association, I will be sure to impress upon them forcibly the necessity for them to immediately join. Please give my best regards to any of the fellows whom you see and with kindest personal regards to you, I am, Yours truly, *M. Carhart*."

Also:

VIRGINIA SMELTING COMPANY
West Norfolk, Va.

"I was surprised to learn how few of '05 are members of the Alumni Association, and I hope that your letter may wake us up. I am glad to report that I have been a member ever since I was entitled to be, but perhaps were it not for my good wife who sees to it that I don't forget such things as dues I might long since have been bounced. I am sorry however, that I have been negligent about helping you on the REVIEW. I have read of the other fellows with great interest but haven't done my part for it is certainly years since I have sent you any news. I am still plugging away on that \$02 game. We long since learned to make the stuff and for past two years have been developing a market which has lead us to the necessity of much research especially in the dying of indigo, and further even to the necessity of designing apparatus and then assembling it. We are meeting with success and some of the largest users of indigo and the best informed men are now our best boosters. As you know I am living in Portsmouth, Virginia which is a city of some 60,000 located on Hampton Roads, and famous as the place in which is located the Norfolk Navy Yard. Although I have been living here six years, I was almost a stranger until about two years ago when I was elected to the Portsmouth Rotary Club. The good fellows I met in that club disregarded my Yankee upbringing and after I had been a member for about a year they elected me their president and then last spring elected me their delegate to the International Convention at Edinburgh, Scotland, and sent me there. I sailed from New York, June first on the, 'Cameronia,' which was chartered for the Rotarians, and after a most delightful trip landed at Glasgow, attended the Convention and then took a tour through England, Belgium, Switzerland and France and returned to England for ten days, sailing from Liverpool for Montreal and home, getting back to work August 15 after a most delightful summer.

I hope that you and your family are all well and am sorry I did not have time when passing through Boston to at least call you up. I believe your letter will get results and if it doesn't I certainly shall be greatly surprised. Please give my regards to any of the fellows you may chance to meet, and with best wishes for your own good self I am, Sincerely yours, *Charles W. Johnston.*"

One of our loyal coeds, who has travelled to a distant field, and likes it, writes:

IDA ANNAH RYAN
ISABEL ROBERTS

Architects

222 South Orange Avenue,
Orlando, Florida

"Glad to know of a revival of interest in the Class of '05, particularly in a State where there are so few M. I. T. architects. Henrietta C. Dozier of Jacksonville and Mr. Adams of Tampa, president of the State Architectural Association, being the only two discovered to date. Florida is the newest pioneer state in the United States, has the most equable climate, except California and is three times as accessible to the East and Middle West. We have had no dull times here — building has continued marvelously through it all — towns spring up like mushrooms, almost, in 90 days. Good roads are increasing every day and afford the best means of approach to all parts of the State. Natural resources are waiting to be developed. No one knows how many or to what extent. Hundreds of miles of wild country are waiting for settlers. Parts of the Everglades have been drained and some of the richest truck soil in the world uncovered. I am glad to be here and hope to help put this new country in its rightful place, on the map. Cordially, *Ida Annah Ryan* (1905)."

Francis F. Longley, who it will be rembered was a Colonel of United States Engineers and at one time in charge of all water supply for the American Expeditionary Forces, writes that he has severed his connection with the League of Red Cross Societies in Switzerland, and is going to Australia to help the newly created Ministry of Health establish a Department of Sanitary Engineering for that Commonwealth. After November 1 his address will be care Ministry of Health, Melbourne, Australia.

W. S. Richmond writes: "Haven't seen any '05 men in an age. Moved to Buffalo in July, where my new address is 705 West Delavan Avenue. Also have a new connection as

consulting engineer to the Niagara Falls Power Co. Don't remember whether or not I announced the birth of my son Paul Deming Richmond on November 7, 1920. This is my third child."

The following came on one of those highly decorative post-cards which are one of the principal architectural details of our national capital.

"See other side of the card for question (viz. Iss der ink factory closed down!) Answer, No. But what in blazes is one to write about. Wait till Re-Classification, Reorganization and Disarmament are settled. Then maybe. At present, I am doing same as I was last time you wrote anything about me, only more of it. Sincerely, A. N. Ofiva; per B. L. Johnson."

W. H. Lalley writes that he can't tell much except that he is principally interested in the Lalley Light Corporation, which manufactures electric light and power plants for country homes, farms and out-of-the-way places that do not have access to central service juice. He might sell one to Bill Green, who at last accounts was subduing the wilderness on an island on the coast of Maine for a summer home.

Attending conventions seems to be a favorite occupation with some of us. Indeed, the assistant secretary bases his usual alibi this time, when urged to write these notes, on the fact that he attended an Advertising Convention in New Haven last week and is getting ready for a Direct Mail Convention in Springfield next week. Ira Banash was on from Chicago for the Safety Council conference held in Boston last month, in preparations for which Ed Coffin as engineering counsel of the Associated Industries of Massachusetts was also active. An anonymous letter, the printable half of which I ascribe to Andy Fisher, mentions attendance at the Chemical Show in New York, where Doc Lewis and Bill Green were exhibiting and otherwise behaving themselves, and Clark Warren was selling kegs and drums for dyestuffs. The writer inferred that all his large orders would stipulate that they be shipped in Warren's containers, to which no one who remembers the 40 centimetre gun at our 1916 reunion, could object.

Changes in the Faculty at the Institute, announced at the beginning of the term contain the following items: "Henry H. W. Keith comes back to the Department of Naval Architecture, after some years absence spent in the service of the Government," and, "Instructors made Assistant Professors.—Irving H. Cowdrey, Mechanical Engineering."

Through the kindness of Prof. C. E. Locke, we have the following:

Professor Joseph Daniels of the University of Washington came on from Seattle during the summer, with his wife and family, to visit his people in Boston. Unfortunately he, in some unknown way, poisoned his foot and was in the Peter Bent Brigham hospital for nearly a month until he sufficiently recovered to return to Seattle. The infection was rather serious and went into the bone. The last account received from him, in September, was that he was on crutches and would undergo, very shortly, an X-Ray examination to determine whether he would have to spend another month in the hospital or not.

New addresses have been received as follows:

Roy H. Allen, Box 573, Joplin, Mo.; E. H. Bartlett, 112 Parker Street, Newburyport, Mass.; Dr. Charles H. Clapp, University of Montana, Anaconda, Mont.; H. Lawrence Dean, 833 President Street, Brooklyn, N. Y.; Prof. John F. H. Douglas, Marquette University, College of Engineering, Milwaukee, Wis.; Hellet R. Robbins, Equitable Building, Room 3260, New York, N. Y.; Preston M. Smith, Manthey-Zorn Laboratories Co., 1834 Prospect Avenue., Cleveland, Ohio; James H. Tebbets, 25 Elm Avenue, Wollaston, Mass.; Kilborn Whitman, Jr., 109 Walnut Avenue, Boston 19, Mass.; Elmer W. Wiggins, 115 Beverly Road, Upper Montclair, N. J.

The secretary's change of address to 377 Broadway, Boston 11, does not indicate a change of business, but simply the removal of our main office and printing departments. It will be noted that the assistant secretary is still located at 246 Summer Street, from which address, like the blooming camel, he crowded us out with his growing list and mailing department.

1906

J. W. KIDDER, *Secretary*, 50 Oliver Street, Boston, Mass.

E. B. ROWE, *Assistant Secretary*, 92 State Street, Boston, Mass.

The recent appeal to increase the membership in the Alumni Association is responsible for the following news items.

S. H. George writes from Chicago:

"With Chicago, Milwaukee and St. Paul Railway Company since 1907. Assistant engineer on location, construction and maintenance, in Montana, Idaho and Washington, resident engineer on concrete lining, St. Paul Pass Tunnel, two-mile tunnel in the Bitter Root Mountains. Pilot engineer and now office engineer in the valuation departments. Associate Member American Society Civil Engineers. Member American Association of Engineers."

E. K. Chase who is in Denver, Col. with the American Smelting and Refining Company sends these words:

"I have been traveling round so much lately and also in the Pueblo flood that possibly I have lost mail. Business is very rotten in the mining line out here and no man knoweth where tomorrow may find him, however, we hope for better things sometime."

The following is from P. V. Perkins who is with the American Carrara Marble Company at Carrara, Nev.

"Have managed to keep fairly busy since the old 'Tech' days. Out in the Nevada Desert is Carrara, about the bummiest looking town you ever saw. However, it is my permanent address and I am rather proud of it, having built it along with developing the marble deposits."

The secretary takes pleasure in acknowledging the receipt of two letters from '06 ladies, viz.: Mrs. S. P. McDonald (nee Caldwell).

"I am still preceptress of Woodland Park in Auburndale — the Junior Department of Lasell Seminary (School for Girls)."

Mrs. Carroll E. Miller writes:

"Upon receiving various communications from the Institute I have forwarded them on to Mr. Miller and also notified different members of his present address but evidently you have not heard from him directly. After Mr. Miller's release from the service he accepted a position with Montgomery, Ward in Shanghai, China so he has not been home for two years. We have five beautiful kiddies and long and look for him daily, but it begins to look as though he has succumbed to the lure of the Orient."

The secretary had the pleasure of lunching with Terrell Bartlett in Boston on October 7. Bartlett is in business in San Antonio, Texas under the name of "The Terrell Bartlett Engineers." He came to New York to participate in the meeting of the American Society of Civil Engineers and took the opportunity to come to Boston to visit the Institute for the first time since 1906.

The following card has been received:

"Coverdale & Colpitts, consulting engineers, 66 Broadway, New York, announce the engagement as a member of their staff of George W. Burpee, member of the American Society of Civil Engineers, member of the Engineering Institute of Canada, formerly managing engineer of Westinghouse, Church, Kerr & Company and lately of its successor Dwight P. Robinson & Company."

Percy Tillson remarked to the secretary on one occasion that he disliked to see so many news items regarding himself in the REVIEW. With all deference to Percy as a modest telephone man, we trust he will not object to this one.

Mr. and Mrs. Percy E. Tillson announce the birth of their son, George Fairlamb born the eleventh day of September, nineteen hundred and twenty-one.

Among recent address changes, we note the following:

Marden W. Hayward, Apartado 251, Monterey, Mexico; Joseph W. Johnson, care American Agricultural Chemical Co., 2 Rector Street, New York, N. Y.; Jean P. Varian, 1272 Gaylord Street, Denver, Col.; Herbert L. Williams, 160 Front Street, care New Jersey Zinc Company, New York, N. Y.

1907

BRYANT NICHOLS, *Secretary*, 2 Rowe Street, Auburndale, Mass.HAROLD S. WONSON, *Assistant Secretary*, care W. H. McElwain Co., Manchester, N. H.

John P. Chadwick is the general representative of the South American Department of American Smelting and Refining Company. His headquarters are now in Valparaiso, post office address being Casilla 106.—George A. Crane, 1552 Calvert Avenue, Detroit, Mich.—The permanent address of J. G. Moore is P. O. Box 712, Daytona, Fla. He represents the Ingalls Iron Works Company in Florida.—The following article from the *Baltimore Sun* of August 3, 1921, will be of interest to '07 men:

"W. W. Pagon, consulting engineer, returned to Baltimore yesterday from abroad where he inspected harbor and pier facilities of the principal ports of Northern Europe. Mr. Pagon's trip, while made on his own account, was really an extension of the trip he made in the winter of 1919-20 to study the ports of this country for the Export and Import Board of Trade. He sailed from New York, June 4 last and returned on the steamer 'Zeeland,' Monday, his ship being one of those delayed beyond August 1 because she carried immigrants.

Mr. Pagon visited Copenhagen, Amsterdam, Rotterdam, Antwerp, London, Liverpool, Manchester, Southampton, Hamburg and Bremen. In every port he visited, he said, he found shipping tied up for want of cargoes, much as it is tied up in Baltimore, only somewhat worse. Work on extension of pier and harbor facilities, however, still is going on. In Antwerp, Mr. Pagon said, he found little evidence of the German occupation and comparatively little damage done. Belgium, he said, is coming back strong and he found wherever he went practically all the land under cultivation in spite of the things the Germans had done to it. He saw a part of the famous Hindenburg line, and that, too, was under cultivation, the only trace of the line being the chalk from the excavation which was mixed with the top soil.

France, too, Mr. Pagon said, is coming back strong, in spite of the complication she has to deal with. The greatest trouble he found in Europe was the shifting conditions of exchange and the difficulty of arriving at any standard of the cost of things.

Mr. Pagon thought that Baltimore had a lot to learn from such ports as Antwerp and London, especially in the matter of warehousing. The warehouse problem of the American ports is a big one and never has been entirely solved, he said. But over on the other side the people have been working on such matters for more than a hundred years and have arrived at conditions that seem to be entirely satisfactory to them. In the European ports, he said, he saw more cargo-handling machinery on the piers than he had ever seen in all the big American ports put together."

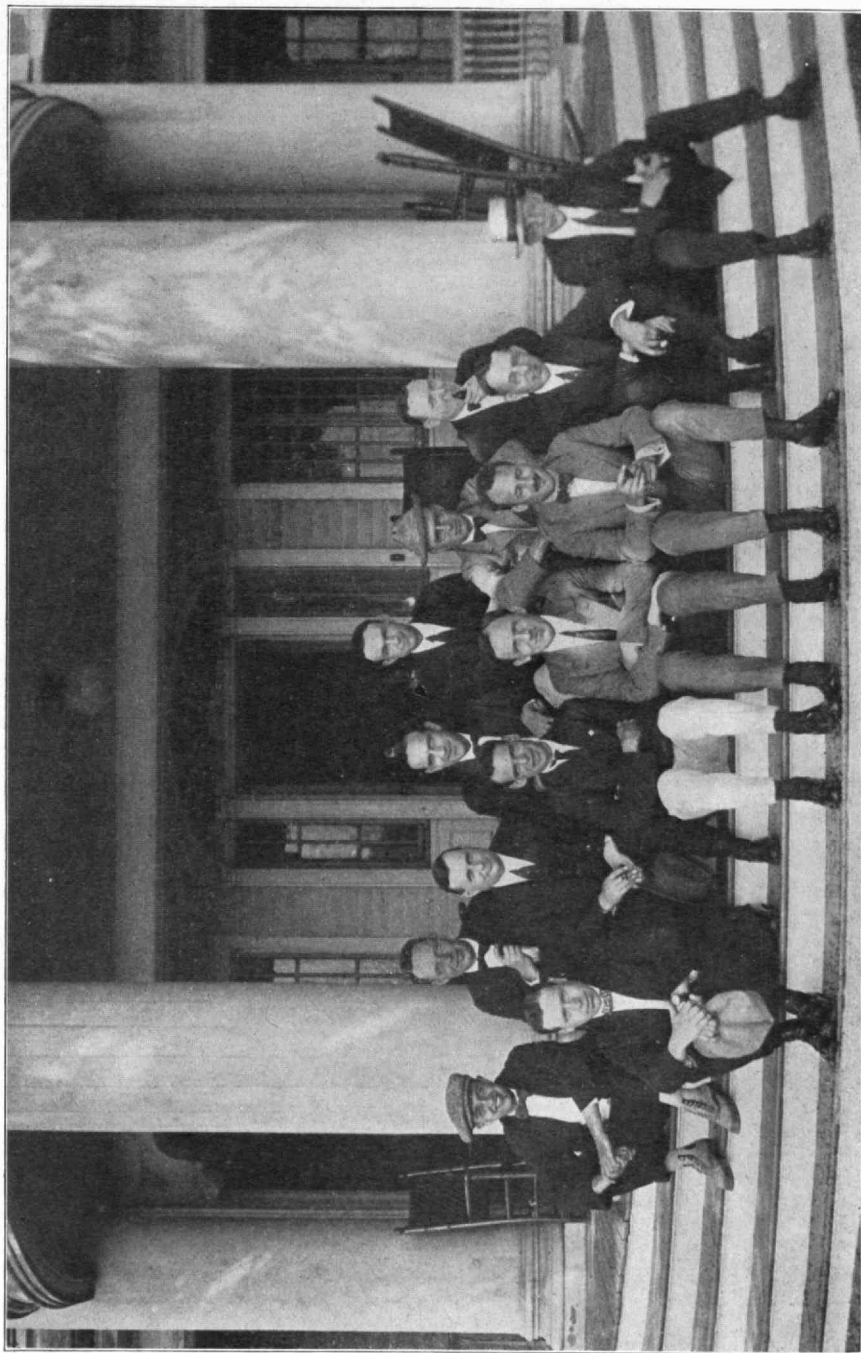
Lawrence Allen has resigned from the W. H. McElwain Company with whom he has been connected for the past twelve years, and has moved to Manchester, N. H., to become associated with the F. M. Hoyt Shoe Company of that city.

Raymond W. Parlin is a representative of the International Motor Company, 25 Broadway, New York City, selling Mack Trucks. His home address is 531 Pleasant Place, Westfield, N. J.—"Don" Robbins was seriously sick during September and October but happily is now improving. "Don" is right-hand man to "Nat" Middleton, the two directing the engineering department of Hornblower & Weeks, 60 Congress Street, Boston, Mass., bankers and brokers.—Oscar Starkweather is now living in Needham, Mass.—Harold S. Wilkins, Headquarters 2d Corps Area, office of Department Ordnance Officer, Governor's Island, N. Y.

1908

RUDOLPH B. WEILER, *Secretary*, care Sharples Separator Co., West Chester, Pa.L. T. MAYO, *Assistant Secretary*, 181 Massachusetts Avenue, Boston, Mass.

Once more it becomes our sad duty to record the passing of another of our members. Irving Morse Guilford was born August 22, 1881 and died at West Cheshire, Conn., August 29, 1921 of typhoid pneumonia. After preparing at the Chauncey Hall School he entered the Institute with the Class of 1908, graduating in Course II. He was a member



1969 REUNION, JUNE 10-12, 1921, RIVERSEA CLUB, OLD SAYBROOK, CONN.

of the sophomore Tug-o-War Team. At the time of his death he was purchasing agent and mechanical engineer for the Ball and Socket Manufacturing Co., West Cheshire, Conn. Besides his wife, who was Miss Emma Fitch of Boston, he leaves four children to mourn his loss; Irving F., nine; Burton J., seven; Philip, five and Jane, three and one-half. His mother also survives him.

In reply to the secretary's letter of sympathy from the Class Mrs. Guilford wrote: "I hope sometime that one of our boys may carry on their father's loyal M. I. T. enthusiasm."

Alton M. Cook is associated with the J. William Beal Sons, architects, 58 Summer street, Boston.—"Tim" Collins is again back in Boston, to the delight of his classmates. He is with H. C. Wainwright, 60 State Street, Boston, in the bond department.

1909

CHARLES R. MAIN, *Secretary*, 201 Devonshire Street, Boston, Mass.

GEORGE A. HAYNES, *Assistant Secretary*, 531 Atlantic Avenue, Boston, Mass.

We did not get a cut made of the photograph of the Class group taken at the outing at Old Saybrook in time to have it appear in the last issue of the REVIEW, but here it is this month, as a pleasant remembrance to those who were fortunate enough to be there, and as an incentive to those of us who could not be present this year, to plan now for next year's outing. From later reports which have been coming in, one would judge that it was "some party." What the crowd lacked in numbers was more than made up in enthusiasm.

"Mollie" Scharff announces the birth on August 10, 1921, of Samuel Adler Scharff, weight 6 pounds, 11 ounces. Congratulations!

"Benny" Dow was in Boston last month, while on his vacation and stopped in for a chat with the secretary. Benny is now works manager of the Oswego Tool Company, Oswego, N. Y., manufacturers of plumbers and pipe-fitters supplies, wrenches, pipe cutters, etc.—Walter Clifford has severed his connection with the Harry M. Hope Engineering Company and is now in business for himself, being a member of the firm of Clifford & Roebled, 101 Tremont Street, Boston, Mass.—The Maxwell Motor Corporation announces the election of B. E. Hutchinson as treasurer. Hutchinson was formerly treasurer of the American Writing Paper Company of Holyoke, Mass.—Major Fred M. Green is now stationed in the Philippines.—Thomas H. Atherton, Jr., is engaged on community housing work at Commerce Park, where forty-seven dwellings are being erected, together with preliminary plans for the New Field Artillery Armory. Atherton has been doing some landscape, as well as straight, architectural work.

The following has just been received from Harrub:

"I received your note in reference to dues in the Alumni Association, and am glad to be reminded that I had not paid them for the current year. I most certainly wish to maintain my membership, and am forwarding \$3.00 to cover dues.—You will notice the above heading (Tennessee State Board of Health) indicates a change in my position since I saw you in Boston in June. I had been acting state sanitary engineer, with the Tennessee State Board of Health for about two years, at that time as a detailed officer of the United States Public Health Service, to assist the State Board in securing an appropriation and organizing a division of sanitary engineering, and was so successful that they asked me to take the position of director of the new division. I finally decided to accept, and severed my connection with the Public Health Service on August 31 last. There is a big untouched field for the sanitary engineer in this State and I believe I have a very promising future here. Water and sewerage works are in a deplorable condition in many instances, but the improvement work that has been inaugurated as a direct result of my work here is most encouraging, and this promise of results was a large factor in deciding the change."

A card has recently been received by the secretary announcing the engagement of E. Q. Adams to Miss Jane Jackson Pidgeon.

1910

DUDLEY CLAPP, *Secretary*, Gloucester, Mass.

A few very welcome letters have come to the secretary this quarter to keep the Class notes from going down to zero. Hope this is the beginning of a series of them. Come on!

Chet Dunlap sent the following:

"In cleaning out my desk (semi-annual) I found an envelope, self-addressed, to you and I took the silent hint, for I have a few lines for the fellows. I can't seem to stay in one place on this earth very long and am about to start my wanderings again.

The London factory of the Kolynos Company burned down recently and I am going over to select a new building. When that is finished I'm going to take a little jaunt through France, Switzerland and Italy to size up business conditions. May possibly go to Greece, if conditions warrant it, but it looks as though there is a little too much war going on there to have any chance of selling tooth-paste.

It seems to me that Laurson ought to have a pretty good story to tell about this time for he has just returned from abroad. I want to correct a little statement he made to you. I am only assistant manager of the company and not general manager.

Would like to hear from E. K. Jenckes, as I have lost track of him entirely and would be more than glad to see him if he comes near New Haven. Will have more to tell you when I get back and will write again."

Our former secretary, Johnnie Fitz, comes to life also thusly:

"From my New Haven, Conn., location, the International Motor Company sent me to our general service department here in New Brunswick.

If you ever feel resentful toward me for not keeping up my class secretaryship, the nicest way to get satisfaction is to go out and buy a 'Mack Truck' — thereby forgetting all your cares and troubles — even those attending the more or less thankless job of being Class secretary. So far I have found no 1910 here, though there are several men from other classes. — *J. M. Fitzwater.*"

E. K. Jenckes makes a change of job an occasion to let us hear from him.

"The last time I saw you I got my name in the TECHNOLOGY REVIEW, so I'll try writing and see how that works.

At the Alumni dinner I met Lansingh, '98, and he convinced me that I ought to leave my nice comfortable job with the International Nickel Company and get out and do a wee bit of work for a change. The result was that I resigned from the Nickel Company in August to accept a position as sales manager with the York Metal and Alloys Company, 56 Pine Street, New York City, of which company Lansingh is president. Now I have the job of selling Feno alloys of tungsten, vanadium and molybdenum as well as other rare metal products to the makers of high speed steels, and just now no one is making any. I have an idea that in addition there is a considerable market for salts of these and other metals for non-metallic uses, but that has to be developed. Isn't this a nice job for a young and ambitious man?

Leaving your official Class secretary's duties aside, take your typewriter in your lap and tell me how it goes with you, or better still give me a ring when you are in New York next time."

I see by the papers:

"Miss Anna Madeline Lutz, youngest daughter of Mr. and Mrs. William Lutz, of this village (Riverhead, N. Y.), who has been teaching in Public School No. 66, Brooklyn, and Carroll Roland Benton, of 594 St. Mark's Avenue, Brooklyn, were married by the Rev. Joseph F. Curran here this afternoon. It was a very quiet affair. The bride was attired in a traveling suit of navy blue tricotine with taffeta hat to match. She was attended by her sister, Miss May Lutz, who wore navy blue taffeta with taffeta hat of the same shade. Dr. James C. W. Lutz, a brother of the bride, was best man. The couple left on the afternoon train for their honeymoon which will be spent in Canada. The groom, who is a graduate of the Massachusetts Institute of Technology, has a position with the American Telegraph and Telephone Company. During the World War he served overseas with Twenty-ninth Engineers. His home is in Manchester, N. H. The couple will reside in Brooklyn."

"Friends in Reading have received announcements of the recent marriage of Miss Florence Emily Palmer, daughter of Mr. and Mrs. Frederick E. Palmer of 139 Newton Street, Brookline, to Dean Peabody, Jr., until recently a well-known Reading young man

and now an instructor at Massachusetts Institute of Technology, where he was graduated in 1910. Both are prominent members of the Appalachian Mountain Club. The couple are to live in Brookline."

The marriage of Karl D. Fernstrom, XIII, to Katharine van Dyke on Tuesday the eighteenth of October, has been announced. Hearty congratulations are extended to all the new benedicts.

1911

ORVILLE B. DENISON, *Secretary*, 63 Sidney Street, Cambridge 39, Mass.

JOHN A. HERLIHY, *Assistant Secretary*, 588 Riverside Avenue, Medford, Mass.

"You calling me? — Three Jacks! — Yes, I opened on threes — Donald Read Stevens, Jr., Joseph Howard Dunlap, Jr., and Warren Simms Loud."

Here is the dope on the three new Tech prospects: First, wouldn't you just expect Don Stevens' offspring to come on the Fourth of July! Well, sir, that's just when Junior Stevens did come and Don and his wife announce the youngster's original weight as seven pound, four and a half ounces. Its advent was heralded as is the wont of the artistic father with a stone age postal showing the stork leaving their hut after leaving the new offspring. Second, here is "Joe" Dunlap's message also from Akron: "I want to announce to my fellow classmates that Joseph Howard Dunlap, junior, arrived in this world on August 12. He weighed 7.5 pounds and is a regular fellow and has already chosen Tech as a place to 'educate'." Third, just a bit higher on the weight scale comes Warren Simms Loud, whose arrival on September 13 is announced by Mr. and Mrs. Roger P. Loud. Hearty congratulations are herewith extended to all of the persons involved in the foregoing joyous chronicle.

Passing now to an earlier phase of life's cycle, read this one:

Mrs. Delos Abiel Blodgett requests the honor of your presence at the marriage of her daughter, Monica Peck to Captain David St. Pierre Gaillard, United States Army, on Monday, the seventh of November at twelve o'clock at St. John's Church, Washington, District of Columbia.

Wish we could be there to give you the joyous greeting, Pete, but be assured we're with you with hearty good wishes for a glorious future.

And now your secretary must chronicle the saddest of all events — one of our classmate's loss of his wife. Here is the story as written by Joseph N. French in Detroit:

"I have met with the worst of sad blows and have not recovered from it and probably never will. My pal and wife died June tenth and the two kiddies and myself are trying to find a way to live without our teacher and guide."

Needless to say the heartiest sympathy of all '11-ers is with "Joe" in his awful loss.

Marshall Comstock and his family spent three of September's weeks down on Cape Cod, so he writes. — Just after the reunion Minot Dennett wrote in from Detroit that he and his June bride were indeed sorry they could not come East and be with us at the glorious outing. Instead they "spent a week or two in the wilds of northern Michigan." Minot sent warm regards "to all the boys." — Glancing through the jury list of one hundred and twenty-five for the current year in Belmont, Mass., we find the name of Sterling B. Dyer (M. I. T. 1911) — but never mind, Sterling, maybe you won't be called. — Here is an item concerning an '11-er from *The Tech* of September thirtieth:

"Engineer Captain K. Goto of the Imperial Japanese Navy visited the Institute Wednesday. That evening he gave an informal dinner to the officers of the Institute, when he introduced to them Engineer Lieutenant Kamazo Kubota who is to take graduate work here, beginning this fall. Captain Goto is a graduate of courses II and XIII and took part in the Russo-Japanese war."

Roy Huxley has now accepted a professorship at Case School of Applied Science in Cleveland and is in the department of electrical engineering. — L. O. Mills wrote in last August from Holyoke and just sort of off-hand said: "I have just recently been married and business is still very poor." There is a clue, and only a clue — so you'll have to write your own story. — Harry Tisdale has left Newton Upper Falls and accepted a position with the American Dyewood Company of New York City. He is to be in the sales department and is covering the northern part of New York State at present.

At this writing (mid-October) your secretary had arranged a dinner meeting of the reunion executive committee (Herlihy, Bigelow, Whitcomb, Denison) and their wives to start the active work on the ten-year book, when suddenly some little bug struck your secretary and now he is recuperating from a fine young bilious attack, but will launch the campaign very soon. You see there have been not quite one hundred (100) questionnaires returned all filled out and the result of that is if *you* haven't sent yours in *you* are going to be pestered to death until *you* do send it in.— Better write to Dennie! Now for some address changes to close and just one more admonition — send in that questionnaire AT ONCE.

POSTSCRIPT NOTES

E. M. Young has asked the secretary to help him locate, if possible, his "baby picture" which he placed in the group of pictures at the June reunion. Have any of you reunion-attenders seen such a picture? If so get in touch with E. M. Young, 316 Huntington Avenue, Boston.— Here is the very latest bit of 1911 social news, clipped from the *Boston Evening Transcript* of October 22:

"Mr. and Mrs. Henry Southworth Shaw, of Milton announce the engagement of their daughter, Eleanor, to Charles Hudson Sayre Merrill, son of Mr. and Mrs. Frederick J. Merrill, of Manchester. Miss Shaw is a graduate of Miss Haskell's School and is a member of the Junior League and of the 1908 Sewing Circle, of which she is president. Mr. Merrill is a graduate of the Massachusetts Institute of Technology, Class of 1911, and is a member of the Lambda Phi fraternity, the Walker Club and Osiris. He served in France with the Thirty-Ninth Engineers, in the World War."

Good boy, Fat, we're glad to hear you are contemplating blissful contentment! — The secretary is arranging the Fourth Annual "All-Elevens" dinner on the eleventh day of the eleventh month (Armistice Day) and details of the event will be chronicled in the next issue.

CHANGES OF ADDRESS

Cedric S. Anderson, West Penn Power Company, Box 1223, Pittsburgh, Penn.; F. Lester Corts, care W. H. Jackson Company, 335 Carroll Street, Brooklyn, N. Y.; Captain John J. Devlin, 90 West Street, Room 1014, New York City; Joseph N. French 10th Floor, Marquette Building, Detroit, Mich.; Henry C. Frisbee, 1434 Fuller Avenue, Los Angeles, Cal.; John A. Herlihy, 588 Riverside Avenue, Medford, Mass.; Professor Roy D. Huxley, Department of Electrical Engineering, Case School of Applied Science, Cleveland, Ohio; Thomas R. Lathrope, State Board of Health, Little Rock, Ark.; L. O. Mills, 213 Walnut Street, Holyoke, Mass.; William J. Orchard, care Wallace & Tiernan Company, Newark, N. J.; Captain T. B. Parker, 7th Engineers, Camp Jackson, S. C.; Clyde R. Perry, 1 Warwarne Street, Hartford, Conn.; Foster Russell, P. O. Box 27, Spokane, Wash.; Harry R. Tisdale, American Dyewood Company, 80 Maiden Lane, New York City; Guy W. True, 53 State Street, Boston, Mass.; Roy D. Van Alstin,, 416 East 9th Street, Long Beach, Cal.

1912

RANDALL CREMER, *Secretary*, 7 The Circle, Rochelle Park, New Rochelle, N. Y.

FRED J. SHEPARD, JR., *Assistant Secretary*, 568 East First Street, South Boston, Mass.

Kebbon, IV, is hanging out his shingle as an independent architect on or about June 1, 1922, and states that he will be more than glad to undertake commissions for any kind of habitation, human, commercial or education. Kebb is leaving the firm of Welles Bosworth, with whom he has been associated as junior partner for the past two years.— A. R. Davis, II, advises that the H. A. Johnson Company, with whom he has been associated since last year handles bakers' supplies rather than groceries as was stated in the last REVIEW. Without doubt Davis will be appointed Chairman of the Commissary Department, for the tenth reunion.

The Waterbury Republican has the following to say regarding Manning.

"Harold G. Manning, patent lawyer and member of the District of Columbia and New York bars, has recently moved to this city, where he has opened an office in the

Root & Boyd building, for soliciting patents, trade-marks and copyrights. Mr. Manning who is a brother of Charles A. Manning, the proprietor of the local Walk-Over boot shop on Bank Street was at one time an assistant examiner in the United States Patent Office at Washington. He is a graduate of the Massachusetts Institute of Technology, and has been engaged in manufacturing work in various corporations, as well as having been associated with a firm of patent lawyers in New York City and with the patent department of a large Bridgeport factory."

Jesse Hakes, I, is still connected with the Baltimore Tube Company, Inc., manufacturers of seamless brass and copper tubing and miscellaneous brass and copper products. His present headquarters are in the Chamber of Commerce Building, Pittsburgh, Pa.

The following was received by the secretary:

"As the time draws near for the next issue of the REVIEW, I am reminded that in the former issue you requested that the first classmate to see McGrath, please advise you of his whereabouts. Having shaved in front of the mirror just after reading said request, I am probably the first one who saw him.

"It seems like ancient history now, but I left Mobile and the Sunny South about December 1 last year, and have since been domiciled at the well-known Technology Club of New York most of the time. I am drawing pay checks regularly from the McGraw-Hill Company and the very excellent advertising matter which appears weekly in the *Electric Railway Journal* (subscription price \$4 per year, no discounts) is partly the child of my pen.

I frequently dine on Saturday evenings and sometimes Sundays, with R. J. Wiseman, '12, and we'd both be delighted to have any other '12 men in this vicinity join up with us. Near pay days we frequently visit Yates or some other high-class joint and spend as much as a dollar for a feed, but if the other boys should want to be more economical we would forego our dignity and try the Cafe des Enfants, where they broil the wheat cakes in the front window, or even Blake's on 34th. Give us a ring boys, and make a date.—D. J. McGrath."

J. M. Pettingell was married in June, as the following from *The Boston Traveller*, relates:

"Miss Myrtle Van Wye, daughter of Mrs. Flora H. Van Wye, of Bradlee Court, Craigie Circuit, and John Mason Pettingell of 1 Ellsworth Park were married last evening at the home of the bride's mother. The Rev. Raymond Calkins, pastor of the First Congregational Church, performed the ceremony. The bride was attended by a group of young girls, members of her Sunday school class, and was given in marriage by her mother. The best man was Andrew F. Pettingell, a brother of the bridegroom. The bridegroom is a graduate of Technology in the Class of 1912 and the son of Mrs. Caroline F. and the late Capt. John M. Pettingell, of Newburyport. During the war he was an aviator, serving with the rank of second lieutenant in this country and France. He is a member of the firm of Carlson & Pettingell, combustion engineers. The bride is a graduate of Mt. Holyoke College, Class of 1914, with M. A. degree from Radcliffe in 1915. After a short wedding trip Mr. and Mrs. Pettingell will reside at 1200 Massachusetts Avenue, Cambridge, Mass."

C. D. McCormick I, is now in the engineering department of the New England Coal and Coke Company, located at Everett, Mass.—While on the American Society of Mechanical Engineers visit, to the Aberdeen Proving Grounds recently, I was very much pleased to meet Phil Dalrymple II, who is with the Bethlehem Shipbuilding Corporation at Sparrows Point now. His home address is South Avenue, Mt. Washington, Md. Dalrymple is married and has two children.—Dick Scanlon II, is with Dalrymple at the Bethlehem Shipbuilding Corporation, at Sparrows Point.—Fred Baker II, is doing special investigation work along industrial management lines located at the Commercial National Bank Building, Baltimore, Md.

Through error the notice of the death of Henry A. Johnson, II, appeared in the REVIEW. Johnson is still very much alive, living at 31-8811 Detroit Avenue, Cleveland, Ohio. Hope to be able to publish more detailed information regarding his activities at a later date.

Samuel Borovoy I, in sending his application for membership in the Alumni Association, has the following to say about himself:

"Immediately after leaving the Institute, I took the course in mechanical engineering at the Lowell Institute, graduating in 1912. I was with the Gray & Davis Company for about two and one half years, later going to the Saco Lowell shops where I am in charge of the engineering department. Was married in 1911, and have two children, a girl of six

and a boy of four. Home address is 264 Gibson Street, Lowell, Mass."—Harold Watkins I, is now assistant track supervisor, Fitchburg Division, Boston and Maine Railroad, living at 40 Alma Avenue, Waverly, Mass. He boasts two sons, one five years old and the other one. Watkins has already started them on cross country work, he states.—James A. Tillinghast, VI, writes that he will certainly be on hand for the tenth reunion in 1921. He is now practicing law in the firm of Tillinghast & Collins, Rhode Island Hospital Trust Company Building, Providence, R. I.—M. F. Graupner, writes from 315 North 28th Street, Billings, Mont., that he is still an old bachelor waiting to make his pile. He has several possibilities in sight as he has been actively interested in mining and prospecting work since leaving the Institute. Graupner says that while Billings is quite a way from Boston, he sure hopes to get back for 1921.

Elliott Tarr, VI, sends in an announcement from Gloucester, Mass., of the arrival of Elliott Whitney Tarr, Jr., born on October 10, 1921, weight eight and a half pounds. Tarr was married in 1914 and has a daughter Marjorie, six years old. Tarr is with the L. E. Smith Company, who advertise under the head of plumbing, heating and hardware. Tarr does not state which end of the business he supervises.

J. I. Murray, VII, writes from Winnipeg, Canada, that after having enjoyed the benefits of eighteen months training in the well-known United States Army, having risen from lowly rank of private to that of "Shavetail," he is with the Crescent Pure Milk Company, Ltd. rating as general manager. He has not taken the opportunity of marrying yet, although he does not state that he is a confirmed bachelor.

The Pure Milk Company run about one hundred and twenty wagons with about thirty ice cream and butter trucks. Their difficulties with milk preservation are not difficult in the winter as Murray says that temperatures rarely go lower than fifty below. Murray states that he is the only 1912 man in his region and is looking for new recruits.

1913

F. D. MURDOCK, *Secretary*, 230 Chandler Street, Buffalo, N. Y.

R. CHARLES THOMPSON, *Assistant Secretary*, 120 Milk Street, Boston, Mass.

We are getting on so far that the matter of an engagement is a fairly unusual event. This is by way of introducing the fact that Harry G. Burnham, II, has persuaded the only girl, whoever that may be, to say that she would consider taking him on as a partner before long.—Through an oversight we omitted to print the news of the marriage of Effie Macdonald to S. U. Norton of Waterbury, Conn., in July. Accept our belated congratulations, Effie.—Back in 1919 G. W. Bakeman, XI, married Mary W. Davidson of Siberia. They have one daughter, Kathleen, born July 6, 1920.—On May 30, 1920, Helen W. Nichols arrived. Her father states that Gene McDonald has a little "Canuck" (he lives in Canada), but we haven't heard of it from Gene.—Allen F. Brewer, Jr., was born February 9, 1921. Perhaps we did not print the fact that his father, III, was married April 25, 1920, to Miss A. M. Knapp of West Newton, Mass. Allen is in Texas for the Texas Company. He is specializing on fuel oil.—Edgar Menderson, II, was presented with a daughter, Betty, on August 1, 1920.—Bob Bonney, X, is the father of another daughter, Emily, born September 14, 1920.—Spencer Hatch Brewster arrived on October 8, 1920.—Richard Huntley Bridge was presented to Mr. and Mrs. E. M. Bridge, IV, on the twenty-fifth of last July.—We have one man in the movies. C. W. Gotherman, VI, is purchasing agent for the Goldwyn Pictures.

It has been a long time since we have heard from Bob Gans, but we are not surprised to find that he has been doing things. Read part of his interesting letter to the secretary: "Like the rest of the poor patriotic nuts that went into the army, and spent more or less time in France, I have found life very hectic and difficult since my return. About a year ago I joined this organization, which is a manufacturing and engineering crowd combined, and the best I can say for myself is that by virtue of a great deal of hard work, and possibly a fair share of good fortune, we have succeeded in keeping ourselves running during this past year, and have about broken even on expenses. A few weeks ago I was elected vice-president of the company, which is, of course, gratifying to me. We have just brought out on the market a new automobile accessory called the Cellometer, which is an instrument

combining the functions of an ordinary automobile ammeter, with a device for showing the potential amount of energy available in the storage battery at all times. I am glad to report that we are sold up for several months to come, and present indications are that we will be very successful, and I doubt if we will ever catch up with our orders.

I have no ideas in regard to a reunion in 1923, except that I think that it is a darn good idea, and every effort should be made to get as many of the old gang together as possible. You can count on me for any assistance in the way of work or small financing, as you may see fit. The general gaiety of the occasion would be enhanced, if it is at all possible at the present time to acquire any liquor, and have it safely parked in Boston. As all of us are probably due to land in jail anyway, a few quarts more or less will not make any difference."

Mrs. Marion Rice Hart, X, has done the following things in the past year; learned to swim, bake cake and drive a Ford. — Lee Bowman, IV, is in charge of building construction department, division of rehabilitation of the Franklin Union in Boston. — B. F. Thomas, Jr., VI, is back again with the United Railways Company of St. Louis as mechanical engineer in charge of designs of special equipment for steel railways work. A. H. Clark, V, has been transferred to the New Haven plant of the United States Rubber Company. He is in the planning department. — Gardner R. Alden, X, is now chemical engineer with the Dennison Manufacturing Co. of Framingham, Mass. — L. F. Hall, IV, who has an unusual occupation contributes the following note: "I have been 'on the dig' in Egypt the past two winters, spent last summer and a month this spring in Europe, and am now at my home in Portland, Oregon, until September, when I expect to return to New York and Egypt. I'm not prepared to say, however, that because of these activities, I have 'justified my existence'." — Robert A. Leshner, IX, is engaged in engineering economic research on transportation problems for the United States army engineers. — Burton L. Cushing, II, is getting along as a teacher. He is now Junior Master in the Mechanic Arts High School of Boston.

C. J. Berry, VI, is in France for the International General Electric Company. His title is engineer and technical secretary to the manager. He has a son, Robert, two months old. He notes: "Was in business for myself manufacturing reflectors. Decided I wanted to go back to my old company, the General Electric, and so here I am. We are interested in a number of lamp factories over here. In the last two months I have been in England, Belgium, Holland, Switzerland, Italy, Spain and France, so you see I have to jump around a bit. If any of the '13 bunch come to Paris they will certainly be welcome at my office. I see Duffield, Stuart, and Buck quite frequently, and when I was in Madrid I called on Dick Cross, and we enjoyed a real Spanish dinner together."

An appointment to the directorship of the Chapman National Bank of Portland, Me., is the newest honor to come to Miles Langley, I. — G. E. Harmon has completed a laboratory *Manual of Elementary Bacteriology*.

Mayo Tolman, XI, had a narrow escape and we hope that he has completely recovered. Read his description of the accident: "I guess that the only thing to justify my existence is d—— good luck. I was horseback riding as usual on May 13, and the horse slipped and fell on a concrete road. I was taken to the local hospital and all the doctors gave me up, as my skull was fractured in four places including a busted jaw as a side issue. I was unconscious for fifteen days, but am now feeling quite comfortable. Luckily I still have left all the small store of 'gray matter' that I once had. The doctors thought it wonderful I should recover at all and more so still that my mentality hadn't been destroyed. You remember when I was out in Buffalo last winter I had just had my head sewed up from a similar accident. I am well enough to ride again though the medical fraternity thinks it unwise. However, I use a little discretion about riding on concrete and I won't tackle a fence of over three and one-half feet yet a while." We're mighty sorry to hear of Mayo's accident.

A. W. Buck, VII, is another of our classmates in Paris. He is chief of the division of education and publicity, Commission for the Prevention of Tuberculosis in France. This work is supported by the Rockefeller Foundation. — Vice-president and manager is Al Ranney, I, with the W. C. Hedrick Construction Company of Dallas, Texas.

From the *Boston Globe* of May 7, 1921, we learn that — "L. C. Rosenberg, Tech '13, former teacher of design in the architectural department of the University of Oregon, and holder of a traveling fellowship from Tech has sent a collection of architectural drawings from Rome, where he is now studying under the fellowship. The drawings are

on exhibition in the Rogers Building. The fellowship is from the Austin Fund, and was awarded to Rosenberg in 1914, but he was unable to go abroad until the close of the war.

Assistant director of the industries department of Babson's at Wellesley Hills, Mass., is Bill Mattson's, I, job. The secretary saw him in September and is glad to report that Bill is in his usual health and fine spirits. — L. S. Becker, IV, is assistant superintendent in the operation of coal mines for the Virginia Iron Coal and Coke Company. Mrs. Becker presented him with a daughter, Mary, on December 9, 1920.

We were glad to hear from L. D. Walters, and also incidentally from "Hap" Peck. The former writes: "Since the big show in France ended I have been with this concern in the capacity of senior sales engineer. The engineer part of the title does not mean a whole lot, but the sales part is a big proposition. As a matter of fact, you might call me district sales manager for New England, if you chose to be so generous. I have not seen many of the '13 men since I have been back in New England, the reason being that I have been traveling considerably and have spent my leisure hours at home with the chickens. I met Harry Peck on School Street one afternoon and had a ten minutes' chat with him. It seems that "Hap" has legal notions in his mind in connection with some patent work he is developing, so that he is delving into the law books. I imagine that within the period of a year or so he will be some lawyer. That is about all the information I can give about my insignificant self at the present time, but now that I am in New England again, I hope to be able to take more active interest in the work of the Alumni Association."

All Course I men will remember R. A. Nowlin as an original lad. Read his views on education: "I think of an address in the Proceedings of the Society of Civil Engineers by Prof. H. A. Talbot recently. His idea of the kind of knowledge to have is the kind that one has reference to and understands. The engineer who bases everything on theory is rapidly becoming a thing of the past. Personally I do not try to work out the problems in the way that was taught us at school. Life is entirely too short to be worried with figures if the same results can be obtained from a hand book. Life after all is a most interesting problem from an engineering standpoint. Some use engineering to make a success in life, others let it use them as a slave by continually striving to use theory to save a dollar in construction, yet not realizing that by doing so, money has been lost in time, which is the most valuable asset a man has in life. Yet that asset is usually wasted."

Al Gibson, III, writes from California that if conditions in Boston warrant a real reunion in 1923 he might get the Westminster Division together and attend. Perhaps we can, with Canada's aid, fix Al up. We surely would like to see him. — Walter P. Muther has shed his appendix and is back on the job as factory office manager for Brown-Howland Company of Boston. We did not know that Walt was a printer, but we did know that he would tackle anything. He did not return to South America after leaving the service, as his partner in that venture went "West" during the war. — Who would have suspected that Don H. Van Deusen, II, would be a politician. He is one, as his title as president of the Board of Aldermen, Hudson, New York, indicates. Don must be a devil in his home town. He was married May 17, 1920, to Miss Delia E. Champlin. — A. E. Bellis, V, has invented a material for use in heat treatment. He calls his process the Bellis "Lava" Process. He is manufacturing heat treating equipment and doing consulting metallurgical engineering.

Read this note from lonesome Ed Gere, I. He is constructing quartermaster at Fort Mills, Philippine Islands. "In taking over this job I have had a chance to make use of the work I did at Tech. The work has comprised a garrison for air service troops complete from 'soup to nuts.' The only part of the small town we didn't have to build was a power plant. Now I spend most of my time on a salt water system for the old port. This is to relieve the demand on the fresh water supply. It is to cover fire protection and all sanitary connections to barracks and quarters. I am living in hopes of getting back to the good old U. S. A. after two years and a half in the tropics, but I'll regret leaving all this good liquor behind."

C. F. Cairns, XIV, had a prominent write up in the *Boston Traveler* on September 10. Among the nice things said were: "C. F. Cairns the 'Primary' of the Acme Apparatus Company is an ardent amateur and well-known to hams the country over. Mr. Cairns is a graduate of Massachusetts Institute of Technology, Class of 1913. He has had considerable experience in the design of transformers for all kinds of work. As engineer for the Submarine Signaling Company he handled the transformer design and construction.

He was associated with Suell Cabot in special experiments on radio and X-Ray. Mr. Cairns is now engineer for the Acme Apparatus Company and, as he states, is a commercial amateur. He is a member of the Institute of Radio Engineers, C-W Club of Boston, American Institute of Electrical Engineers and several other engineering societies."

It is a long time since we have had a word from "Lammie" Lehmaier, III. At the risk of Lammie's displeasure the secretary is going to let you in on this personal note which illustrates his inimitable style. "The time is 2 A.M., the place is the Penn Hotel, but as they say in the Classics, 'It can't be late, it is so light,' so here goes for a few long deferred lines before turning in to my extremely virtuous couch. As a matter of fact, Fred, old man, two things spur me to write tonight.— one being conscience and the other that awful slur cast on the character of an innocent and embryo financier (in the person of myself) by one William Niles Flanders in the last number of the REVIEW. You might tell Bill that he did me an injustice, as Herbert Hall and I chased the cop on that historic occasion and not he us. But 'Retourn on a Nos Moutons' as the Scandmonks say, that Class news dope is a relish each time the REVIEW catches me up on my return to 'Gawd's Country.' I read REVIEWS in Africa last September, Australia, in December, New York City in February, Australia again in July and yesterday when I blew into the 'Big Noise' again, the April and July numbers awaited me. By the way I called in at Tech in April and saw many old familiar faces which did my heart good, believe me. Tech men crop up all over the place; Frank Sinnicks, '15, jumped me at the St. Francis in San Francisco, looking plump and affluent and down here I have run into H. Kebbon, '12, Jim Campbell, '11, and Charles Ephram Fox, '14. I also saw several in Australia and one in South Africa, whose name has slipped me for the time being. Personally I am still with the Guaranty Trust and am liable to go abroad any day again so can't give you any other address at present than the one you possess. If you get down this way give Rector 6400 a call and let me see you, if the gods will my continued presence until that pleasure, in this city.'" "Lammie" is the foreign representative of the Guaranty Trust Company of New York.

F. Hutchison, Jr., is in Belgium for the Bell Telephone Company. He writes: "Together with my wife and two small children, Franklin 3d and Betty, I am located in Antwerp, Belgium, for a brief stay, which may be for a couple of years or more. I am devoting my time to the study of the patent situation here in Europe relating to the telephone and allied subjects. We find that the only real cheap thing over here is domestic help, and there seems to be plenty. Hope I'll be able to return for the tenth reunion in 1923."

We are glad to print a short letter from Manuel Font, XI: "Your circular letter came and has stirred me to 'obey that impulse' and send you some dope about what I am doing. After I left Tech I worked in the profession for two years as assistant engineer for the Service of Sanitation down here. Then I joined the United States Army as a second lieutenant. That was in 1915. In 1916 was promoted to first lieutenant. In 1917 when the United States entered the war I was sent to Panama and afterwards promoted to captain. In 1918 was promoted to major and sent back to Porto Rico to join the Porto Rican contingent that was going over to France and then — the armistice came. I am still in the army as a major of infantry and at present I am detailed here as professor of military science and tactics at the College of Agriculture and Mechanic Arts. The job is not as big as its name. Last year I was at Camp Devens for the summer and visited the new Tech buildings which I had not seen. I realize how beautiful the new Stute is, but I always think with pleasure of old Rogers building and Engineering 'A'."

H. F. Sutter, I, is now employed as chief engineer for the Pioneer Construction Company of Kansas City Missouri, which concern is engaged in mainly bridge construction,

Roger Freeman has opened an engineering office of his own at 8 West Fortieth Street, New York. He has recently completed investigations for the complete development of the hydro-electric power on the Tippetcanoe River in Indiana.

1914

H. B. RICHMOND, *Secretary*, 73 Harlow Street, Arlington, Mass.G. K. PERLEY, *Assistant Secretary*, 45 Hill Side Terrace, Belmont, Mass.

Luncheon First Tuesday in Each Month
Healy's, 642 Washington Street, Boston, Mass.

If the notes in this issue are not up to standard, you may blame the secretary. These notes do not consist merely of the tabulation of facts sent in. These facts are seldom sent in. It is necessary for the secretary to initiate most of the correspondence making these notes possible. The notes are usually direct replies to personal letters sent out by the secretary. If he falls down, so do the notes. The secretary fell hard this time. Instead of spending his spare time writing letters, he has visited real estate agents, furniture stores, and finally the minister. Your secretary interprets his office as one in which he should carry out the wishes of the majority. As over fifty per cent of the Class have become benedicts, it seemed only fitting that the secretary should join the majority. He did so on October fifth with the aid of Miss Florence Hoefler of Boston. So all ye benedicts, remember that you too were young once and let your secretary off easy this time.

The monthly luncheons were discontinued during the summer, but are to be resumed on the first Tuesday in November. There was not much new work carried on during the summer. In reply to an appeal from the Athletic Advisory Council your secretary sent out letters asking for a small contribution to the Athletic Fund. The replies have been discouragingly small. It is hoped that all who have not yet contributed will do so at once, as this money is urgently needed for the carrying on of athletics at the Institute.

Your secretary is not the only one who was busy during the summer. E. S. Shurtleff, III, has also joined the ranks as is indicated by the following announcement: "Mr. and Mrs. William King Elliott announce the marriage of their daughter, Florence May, to Mr. Ernest Solon Shurtleff on Thursday, August the twenty-fifth, nineteen hundred and twenty-one. Cincinnati, Ohio."—Although somewhat belated in arriving, the following announcement was greatly welcomed: "Mrs. Mary Spinnette announces the marriage of her daughter, Marie Julaine, to Mr. Seymour James Spitz on Tuesday, the fifth day of October, one thousand nine hundred and twenty in the city of Chicago."—H. J. Shaw, VI, has not been letting the cable business worry him this summer. His chief interest has been in the arrival on July 22 of a daughter, Jean. Congratulations, Dunc!

Any fourteeners in Massachusetts this summer could not have failed to hear the name of Al Devine, II, mentioned. Massachusetts has just adopted a new automobile headlight regulation. Devine has been in the employ of the Highway Department drawing up the new regulation and directing its enforcement. About August fifteenth, the day the regulation went into effect, Devine was one of the most talked about men in the state. The newspapers ran feature stories about him, auto dealers owed their dividends to him and some auto owners withheld their comments. When the smoke blew away, however, it was found that Massachusetts really had an auto headlight law which was of material assistance to auto owners. It is based on physical laws and not just a freak.

While the newspapers were parading the movie scandals, word was received that J. M. White, VI, had joined the Fox Film Company at Washington, D. C. Your secretary hastened to write Jimmy to find out whether he was acting or selling stock, but no reply had been received up to the time these notes went to press. Perhaps he is remaining silent on advice of counsel.

M. J. Sayward, II, writes that he is no longer with the Federal Shipbuilding Company, as that company has hibernated until better times. Mac is with Row & Davis, engineers, in New York City. He reports that he has just celebrated his first wedding anniversary. — W. S. Conner, III, has recently returned from Mexico, where he has been investigating business prospects, present, future and possible. He is now in West Berkeley, Cal., with the California Corrugated Culvert Company.

Add to our list of 1914 business houses the name of Goodwin, Newlin & Co., investment securities, Philadelphia, Pa. Nemo Newlin, VI, is the Newlin member of the new company. He writes that business has been brisk enough this summer to permit him to buy two new pairs of shoes. It would be cruel to suggest that he has worn out two pairs

of shoes trying to sell his high-grade bonds. But since the company is the local representative of H. M. Byllesly & Co., it is fair to assume that they have made a good start. If any fourteeners have any money left over after the repeated assessments on the part of the Class secretary, they might try Nemo. — B. T. Rauber, X, also has taken the business venture. The following announcement has been received from him: "Benjamin T. Rauber, formerly of the examining corps of the United States Patent Office, and subsequently engaged in corporation patent work, announces the opening of an office at 52 Vanderbilt Avenue, New York City, for the general practice of patent and trade-mark law, specializing in the chemical and electro-chemical arts." Best of luck to you, fellows. The more fourteeners in business for themselves the more places there are for the rest of us to apply for jobs.

L. D. Faunce, IV, has joined the New York Telephone Company organization. 1914 is represented in New York City by about a dozen men in the telephone industry. — J. H. Lovett, VI, has been appointed assistant professor of electrical engineering at the University of Missouri. He is undertaking the task of building up a strong electrical engineering department at that university. His courses of instruction cover in addition to the principles of electrical engineering, power station design and electric transmission and distribution of power. Before going to the University of Missouri, Lovett was associated with the New England Power Co. — P. F. Benedict, II, is still in the teaching game. He is with the School of Engineering, Northeastern College, at Boston. Teaching is not all that takes up his time because this spring the second addition to his family arrived. "P. F." now boasts of a son and daughter.

G. C. Derry, VI, who is with the B. F. Sturtevant Company, has been transferred from the New York office to the Boston factory. He writes as follows in regards to his recent transfer:

"I am glad to advise that I have returned to God's country once more after having been absent for about five or six years. Of course, we enjoyed it very much over in New York, as there is certainly no better place in the world to do business, but they say that opportunity knocks but once on a man's door and at this particular time I happened to be at home. The chance came for me to take charge of the economizer and mechanical draft departments for the above company and I was particularly glad of the opportunity. It is the most interesting part of the various lines of equipment that our firm manufactures, and it also has the greatest volume of sales, which makes it doubly interesting. My work takes me out to the larger cities throughout the country and on numerous occasions I have bumped into several of the crowd of 1914 and have also done business with a great many of them. I suppose the fact that we both belong to such a Class as 1914 with all its traditions adds a great deal of confidence."

Big Bill Price, X, has joined the exodus from Akron, Ohio, and is now located at Framingham, Mass., with the Angier Corporation. His title is manager of tire wrapping department, and his specialty is the introduction of a resilient, stretchable, wrapping paper. When you get your paper perfected, Bill, sell my Chinaman some so that my shirts will not fall out on the way home. — C. L. Smith, VI, and J. W. Easter, VI, are both with the Carborundum Company at Niagara Falls. — W. A. Snow, II, of the newly organized firm of Sandquist & Snow, Inc., reports that business is picking up, but they are not hiring men for the night shift just yet. — N. A. Thompson, XIV, reports, that he arrived safely back in Shanghai, China, after his recent visit to the United States. He is with the Standard Oil organization.

Rolly Woodward, II, has been located in Petrolia, Texas. He writes in part as follows: "I am down on this blame flat prairie working for Uncle Sam in his Bureau of Mines, as assistant liquefaction engineer and, though this plant was ordered closed a few weeks ago, I am as busy as can be working up data of past performances. Have been down here since the middle of April or just after the du Pont Company found they could dispense with my services.

We have been trying to extract helium from natural gas, but it was some job — the best we made was about sixty per cent pure (the raw gas as it comes from the field contains only one per cent helium). It was this new economy plan of the Government that closed up this place, but we are in hopes."

Frank S. Somerby, I, has had the unique experience of spending the past summer building a house for his parents. He writes about it as follows: "You may be interested to know what I am doing. It is some time since I wrote. I am home this summer for a

three months vacation, the first time I have spent more than a few days here since leaving Tech. It really isn't a vacation, for I have been building a house for my folks. Started it in June. It will be plastered tomorrow. Have done much of the work on it myself. I have accepted a new position for the fall and shall have supervision of junior high and elementary work at Columbia Preparatory School in New York City. The school was founded in 1764 and is probably the most progressive prep school in the country, due to its close association with Teachers College, Columbia University. I shall study at the latter institution for a degree in education."

Just before these notes went to press, several items were received which were of such importance that they are being included in this issue. The first is from R. J. Favorite, II, telling of his recent marriage. The announcement is as follows: "Mrs. Nancy Eliza Avery announces the marriage of her daughter, Louise Randall, to Mr. Richard Joseph Favorite on Saturday, September the twenty-fourth, nineteen hundred and twenty-one, Groton, Connecticut." Congratulations, Dick, I am with you.

C. H. Ober, I, is the proud father of a son. Chet writes as follows: "They have me on shore duty now, after being afloat for almost seven years. Chief of party on precise level work in New York State. Envy you being in one place or at least in the same general locality, all the time. This wandering around makes me feel like a gypsy with a B.S. degree. There are three of us now. Richard Stevens Ober, M. I. T. 1942, has his first birthday next August sixteenth." Chet is with the United States Coast and Geodetic Survey.

A very sad notice which has been received is that of the death in September of wife of A. S. Page, I. The Class extends its most sincere sympathy to Page and to his four-year-old daughter.

Fourteeners still continue to go into business for themselves. The latest is from H. G. Storke, II. His announcement is as follows: "Edward C. Mason and Harold G. Storke announce the formation of a partnership for the general practice of law, 150 Congress Street, Boston." Go to it, Pete, I may need your assistance if I keep on writing these notes.

A. E. G. Collins, III, is traveling again. He is in Mesopotamia this time and has written the assistant secretary as follows:

"Off Bombay, P. & O. S. N. Co., S.S. Dongola, May 29, 1921. I have long intended to drop you a line for old times' sake and made up my mind that this voyage was an excellent time to do it. However, I have had (as usual for me on a boat) so interesting a time that it is only now on the last day that I have got round to it.

I am *en route* for Mesopotamia on a civil engineering job for the British Government (under war office control and with army rank of captain). The immediate job is for a year only, but of course I can't say what it will lead to or where I next go. In fact, the exact work is unknown until I report in Basra. A number of ex-army officers have been engaged to take the place of regular engineer officers, owing to the strength reduction of the British army. We will have charge of much of the engineering work, roads, railways, canals, sanitation, etc., until the formation of an Arab government. Some, including myself, have volunteered to work as long as required for the Arabs in case of the local government being formed in the near future.

It has been hot as blazes since leaving Port Said, but thanks to many fans and playing games hard all day (at cost of many changes, and baths before every meal) I am fit as could be. Those who did nothing are the ones who have been reduced by the sticky, damp heat of the Red Sea. We will have a week's wait at Bombay and then six or seven days sail to Basra. This will probably mean that we will be caught by the monsoon storms. Thank goodness, I am a good sailor! Rather storms than the heat of the Persian Gulf at this time of year.

Hope that you are going strong. Give my cheer to all Tech-ites you see."

ADDRESS CHANGES

M. M. Braff, V, 404 Meridian Street, East Boston, Mass.; F. C. Cleverley, XIII, care E. Cleverley, Produce Exchange, New York City; W. S. Conner, III, care California Corrugated Culvert Co., Fifth and Parker Streets, West Berkeley, California; C. E. Fox, XI, 436 West 23d Street, New York City; E. N. Frank, X, 120 West 36th Street, Minneapolis, Minn.; H. L. Gardner, I, care J. Koolhaven, Esq., 84 Neume Grach, Haarlem, Holland; H. H. Hall, II, care Aluminum Company of America, Alcon, Tenn.; A. E. Hanson,

VI, 816 Otis Place N. W., Washington, D. C.; J. W. Horton, XIV, 193 Central Avenue, East Orange, N. J.; Paul H. Hsu, V, care Government Institute of Technology, 18 Siccawei Road, Shanghai, China; I. H. Lovett, VI, Department of Electrical Engineering, School of Mines, University of Missouri, Rolla, Missouri; M. C. MacKenzie, II, Derry Village, N. H.; H. A. Mayer, XIV, 229 Dolores Street, San Francisco, Cal.; H. B. Richmond, VI, 73 Harlow Street, Arlington, Mass.; M. J. Sayward, II, 168 Clinton Avenue, Jersey City, N. J.; W. A. Snow, II, care Sandquist & Snow, Inc., Room 215 Columbia Building, Miami, Fla.; C. K. Springfield, I, Mansfield, La.; S. W. Stanyan, VI, 10 Park Vale Avenue, Allston 34, Mass.; S. H. Taylor, IV, care Schmidt, Garden & Martin, 1124 Monroe Building Chicago, Ill.

1915

FRANCIS P. SCULLY, *Secretary*, 70 West Chippewa Street, Buffalo, N. Y.

HOWARD C. THOMAS, *Acting Secretary*, 34 Floral Street, Newton Highlands, Mass.

The fall crop of letters from 1915 men is unusually small this year. Whether it is due to a wet season or a dry season or whether everybody is out of work and hasn't the price of a postage stamp, we don't know, but anyway they fail to let us know what they've been doing or what the latest scandal is. If it weren't for a few reliables and the usual results of a summer's moon, secluded nooks, etc., there wouldn't be much in the Class news this month.

The first news of the latter variety comes from Howard L. King, I, who writes from 144 Lafayette Avenue, Brooklyn, N. Y., as follows: "I would be glad to have you note in the next TECHNOLOGY REVIEW that on July 2, 1921 I was married to Miss Margretta Struss, in New York City. I am at present working for the New York and New Jersey Interstate Bridge and Tunnel Commission on the Hudson River Vehicular Tunnel. I seldom see any classmates. I hear that Joe Livermore was in town recently and that he almost came to see me. Cordially yours,—"

Incidentally, Joe didn't get through with Lockwood, Greene & Co. after all, but was sent out as resident engineer on a new job for the Shambow Shuttle Company in Rhode Island.

We received a clipping the other day entitled "The Burtner-Dubois Nuptials at North Church." It came from Evers Burtner, XIII, of Lynn. "More than three hundred relatives and friends assembled at the North Congregational Church, Lynn, last evening (September 12) to witness the nuptials of Miss Mary Ellen Dubois, daughter of Mr. and Mrs. J. Frank Dubois, of 20 Conomo Avenue, to Evers Burtner, son of Dr. D. Emory Burtner, pastor of the church, and Mrs. Burtner.

The auditorium was a bower of beauty, autumn foliage and goldenrod predominating. Miss Esther Nazarian, of Swampscott, presided at the organ, as the bridal party entered, proceeding to the altar.

The double ring ceremony was performed by Dr. Burtner, father of the groom, assisted by Rev. E. J. Evers, of Stamford, Conn., uncle of the groom. Bertram Southwick, '18, of Lynn, a close friend of the groom was the best man. The ushers were Vassar Stockpole, Edward Pollard, '17, Douglass Willett, of Lynn, Gilbert Peakes, '19, of Perth Amboy, N. J., and Robert Hart, '15, of Morristown, N. J.

Following the reception in the church parlors, Mr. and Mrs. Burtner left on a wedding trip for Nova Scotia, the Evangeline country. On their return they will reside in their new home at 3 Audubon Park, Lynn.

Both the bride and groom are well known in this city. Both are graduates of Lynn Classical High School. The bride is a graduate of Simmons College and has been an instructor at the Lyndonville Institute, Vermont. The groom is a graduate of the Massachusetts Institute of Technology, class of 1915 (XIII) and is now an instructor of that institution. He is also the official yacht measurer of the Boston, Eastern and Corinthian Yacht Clubs."

On behalf of the Class of 1915 we extend our heartiest congratulations, Mr. and Mrs. King and Mr. and Mrs. Burtner.

While we are on the subject of newlyweds; we received the following formal notice from Louis H. Zephler, V,— "Please note change of address to 128 De Hart Place, Elizabeth, N. J." Everybody please note.

The next subject under discussion will be the news from our national capital. We have two "stand-bys" there and we are mighty glad that we can rely on them to help us out. The first is from Sanford Willis, III, who is still with the United States Tariff Commission (I am glad somebody is still with the same company they were with last time heard from!) Sanford has had quite an interesting experience last spring abroad but it is best told in his own words.

"Dear Howard: The arrival of the last number of the REVIEW reminds me that I owe a letter of apology to Frank Scully and yourself and to the bunch as a whole for that matter, for not keeping more in touch with '15 and what it is doing. It may be that you think me gone to my final reward (or punishment) for reasons better explained later, but I assure you that such is not the case. In the first place I believe I wrote you that I came with the Commission two years ago, to conduct industrial surveys of several metal and mineral industries. Later a man was wanted to take charge of the surveys dealing with industries falling under Schedule B of the Tariff Act and, as I had had some experience with ceramics, I fell heir to the job. The work in question has given me an excellent opportunity to see the wheels go round, and compare the plant efficiency of different companies, but I must confess that Washington, for a married man with two youngsters and a wife to look after, is hardly the ideal town it is painted. Jim Toby can give you first-hand information on that score, but I believe that I hold the moving record with six jumps in less than two years. At the present time the family is in Maine and I am going the rounds of the real estate offices once more in preparation for their expected return.

Last winter, February to be exact, the Commission decided to send men abroad to look into industrial conditions over there, and Tyler, '14, and myself were among the lucky ones. We left New York February 26 on the "Aquitania" and returned on the same boat the tenth of June. I spent a month in England most of the time chasing around the midland counties looking into the pottery situation, and the metal trades, and then packed up for the continent. I can't say that I was sorry to leave the snug little isle because I must confess that the manufacturing towns are far from works of art or beauty. I always thought that Butte, Montana, and Cripple Creek were the last word in ugliness and desolation, but I take off my hat to Wolverhampton and the other towns in the Black Country. How anything beautiful or worth while can come out of them is beyond me. Arriving in Brussels *via* Ostend I got in touch with Solvay & Cie and several other concerns interested in the American market, and the next two weeks were one prolonged joy ride. There are a large number of old Belgium relief men in Belgium industry and trade, and these outdid themselves in hospitality. I saw Belgium from end to end by auto, visited all the plants I cared to see, and was mighty sorry when I was forced to leave for the south of France for a look at the porcelain industry at Limoges. My good luck continued here also. I found that Mr. William Haviland of the Theodore Haviland Co. is an American and a Harvard man, and during the evenings I was given the time of my life. It was hard to break away but finally I was forced to hop a rattler for Berlin by the way of Cologne. At this point it is perhaps well to offer a little advice to any fellows who contemplate a trip through central Europe. Never take a trunk with you, it will be stolen before the trip ends and in the meantime one is generally held up double time at every customs barrier. It doesn't pay to cuss out the customs men because although they may not speak English they understand a cussing out in any language and inevitably will find further excuse for delaying your journey. This may seem out of place, but when you consider that once east of Germany there is a customs line about every twenty miles, you will understand that most of your time is spent waiting your turn with the custom pirates.

At Berlin I found that our resident man there had been in touch with the manufacturers' associations and as a result the latter opened up like tangerine oranges. We went by auto from one end of Germany to the other, from Hamburg to Nuremberg and west to upper Silesia. On the whole the country looks prosperous enough, but the city dwellers are undoubtedly having a pretty hard time, because the wages are actually less than they were in 1914. From Germany I jumped to Czecho-Slovakia, visited Carlsbad, Prague and other cities and had lunch with the President of the Republic. It was some party. We were met at the train by the royal coach and deposited in the royal suite at the best hotel in town. I nearly fainted when I thought of the hotel bills to come, but covered the distance never the less. We had three rooms and bath, finished in marble and gold, and

looking around we estimated that about \$50 a day was the least we could expect. Imagine our surprise when our bills for two, including meals, amounted to less than \$3.00 per day. That was the regular price, too. Leaving Prague we visited Vienna and from there struck across country north to Warsaw and then back by way of Danzig to Berlin, London, and home. On the whole I found continental travel rather comfortable, especially when consideration is taken of the fact that fares in central Europe are less than a cent a mile, first-class. There are some bad spots to be sure, and once when we had the bad luck to pick a Polish emigrant train for a sixty-mile trip I swore I would go by plane in future. Imagine if you can five adults, six kids, and about a dozen big reed hampers in one third class compartment, travelling about ten miles per hour, and you have the *tout ensemble* of that pleasant little journey. I forgot to mention that most of the prospective citizens of the U. S. A. were carrying their livestock with them and from what I saw and felt, I can see no excuse for having horses or oxen on the farms of Poland. A team of those cooties would pull the Broadway limited.

So much for Europe. Regarding my supposed death, a fellow by the name of A. R. Willis was with the Tariff Commission and strange to say lived on the same street within a few doors of where my family was resting at the time. May 24, he lost his balance in a canoe up the Potomac and was drowned before help reached him. Willis was a member of the American Chemical Society and his death notice was published in all the McGraw-Hill publications, as well as in various newspapers throughout the Middle West. The similarity of name, occupation and home address was enough for most of the people I know and ever since letters of condolence have been coming in every mail. It may be a fine thing to know what folks will say after you are gone, but I must confess it is rather gruesome. Maybe publication of the facts in the REVIEW will help to correct the mistake. I guess I have shot off my mouth sufficiently to suit and probably bore you and I must quit the chatter anyway and pick up stakes for a trip to Capitol Hill. Best wishes to yourself and to the Class in general."

Sanford didn't bore us at all and we wish others who have had similar interesting experiences would not remain so backward about telling us.

Today (October 17), we called on George Rooney, I, at the Scully Company, Cambridge, on business and his first words were: "Did you get the big news?" We thought that he meant he had a job for us, but no such luck. He pulled out one of these double-enveloped stationer's products which gave the news that on Monday, October 10, at Dayton, Ohio, Miss Mildred Corinne, daughter of Mr. and Mrs. A. G. Van Audal was married to Lieut. Charles Lester Morse. Les didn't let us know about it, but we'll fool him and get it in the REVIEW anyway.

George had quite a story of an automobile accident in which Les and Miss Van Audal figured, but as we haven't the details we'll say no more about it. We might be sued for libel. Evidently they both have recovered sufficiently. Here's wishing them the best of luck and prosperity.

Speaking of business, as we were a few lines up, the assistant secretary is now associated with the Technical Laboratories at 27 School Street, Boston. Among our products are concrete floor hardeners developed by Prof. L. F. Hamilton, '14, whom many of us will remember as the captain of our company in freshman military drill. "Ham," as we call him now, has certainly gotten something very good, and considering the general business conditions, it has gone exceedingly well. We have done considerable work around Boston and are now extending our territory to include Springfield, New Haven, and New York City. We also have a representative in St. Louis. We guarantee to harden satisfactorily any concrete floor regardless of its present condition, so if you are having trouble with your floors dusting or wearing let us know, and we will fix you up (this is the only place where we can get any free advertising, and they may charge us at that!)

Frank, our secretary, who is still in Buffalo, sends the following dope:

"George T. Wooley, now with Latham Machinery Co. of Chicago, dropped in to see me about two weeks ago and we had quite a talk about what the fellows were doing. He had rather a novel experience himself a short time ago when a man who dropped in to see him informed Wooley that it was a very strange coincidence, but that his name also was George T. Wooley. The visitor continued on with quite a history of his experiences during the war, stated that he had been on the Prince of Wales' Staff while that celebrity was in Canada and that he had just come down from Canada to supervise the return of some Canadian soldiers' bodies to their former homes. Unfortunately, his Rolls-Royce

had broken down just outside of Chicago and he had left his uniform there with the car and wondered if it wasn't possible for Wooley to advance him a slight sum of money. To justify his asking for this, he stated that he was quite a friend of mine and evidently knew quite a lot about the 1915 Class at Tech. Wooley, however, felt that there was something fishy about it all and managed to get rid of him without suffering any loss. I have no idea who this fellow could have been but he evidently studied his ground before he attempted to touch, since he knew that both Wooley and I were 1915 men and had a lot of miscellaneous information about happenings at Tech around that period.

Last Sunday I happened to be in Indianapolis, so I called up Ware Howlett, X, at Kokomo. On being informed by Mrs. Howlett that he was on the golf links I went up there and surprised him. Ware is getting along very well and is technical superintendent of the Kokomo Tire and Rubber Co. As Ware has been in that part of the country for quite a time he has not seen many 1915 men, but I know that if any of the fellows get to Indianapolis he certainly would like to have them look him up.—A. H. Samson who was living at the University Club in Buffalo for a couple of years has returned to Boston where his activities will be with the sales department of the National Aniline Co. I have not seen any other '15 men recently, though I expect to look up Ned Whiting in a few days. I have been out of town so much that I have had very little opportunity to see any of the men around here.

Business is continuing in pretty good shape and I think that the improvement noted in the general conditions will be quickly reflected with us.

I have received a letter from Allen Abrams saying that he has left the Institute and is now with the Cornell Wood Products Co., Cornell, Wisconsin. This change has been rather recent. He states that he will write me a personal letter a little later so that I may have some more information to forward along to you.—I presume that you received a notice from Bill Spencer announcing the arrival of William Price Spencer, July 20."

No, we hadn't heard about William Price Spencer, but we extend our congratulations, even if they are several months late.

Frank also enclosed a letter from the advisory council on athletics. In brief this letter presents the following facts: *First*, M. I. T. is the only institution in the country where the control of athletics is vested entirely in the Alumni Association; *Second*, with such control there is of necessity the complementary obligation to assist and further the athletic interest of the undergraduate; *Third*, at the present time the chief source of support is a tax, self-imposed, by the students upon themselves which yields approximately \$8000; *Fourth*, with this very small sum, augmented by paid admissions, etc.—payment of tax carries free admission—the total being less than \$15,000, nineteen different teams have been operated during the past year with a very large measure of material success and a fine tale of clean sportsmanlike competition. Other institutions on a parity with Technology are spending \$50,000 to \$200,000. For example, Harvard spends in the neighborhood of \$200,000 to operate thirty-four teams. M. I. T. has not nor can have a profitable foot-ball team. *Fifth*, since the tax was first imposed, the dollars has shrunk in purchasing power, and at the same time, certain expenses have increased disproportionately. Among the heaviest expenses are transportation, subsistence, and coaching. *Sixth*, the undersigned (Allen Rowe, secretary-treasurer of the Advisory Council on Athletics) has appealed to the classes and to the local associations to insure a permanent addition to the income upon which the students can count. The request has been made that \$50 a year be pledged by each Class and \$50 per year by each local association. Under these conditions and with a direct responsibility of the alumni association it is felt not merely by the undersigned, but by the large number of graduates whose opinions have been solicited, that this request is a definitely legitimate appeal which should be acted upon favorably by each Class.

Frank says: "If we can afford it I believe that you and I can take the responsibility of forwarding a check for \$50 for this fund with the plan of mentioning it when we send out our next Class bills and at that time requesting that whoever can do so give a dollar or two extra to go toward the athletics of the Institute. I believe that we would get the \$50 back at least." As Frank suggests, we will send the \$50 from the present funds and get the proper authorization later.

You can't keep a good man down, and as Jim Tobey feels constrained to rise (as usual) we will let him get it off his chest and then we'll all feel better.

"My dear Tommie: When I see a good deed (especially a Tech deed) well done,

I feel constrained to rise, grab my (t)rusty Corona and indite words of commendation. You are covering yourself and the best of classes with glory by your peppy, newsy, thorough Class notes in the REVIEW. They are most interesting. I hasten to write now, because if I postpone doing so, my multifarious duties may cause me to forget to do so. I suppose you have some kind of files out there in your floral home where this letter can be tucked away until October.

There is another little thing I should like to put on record. The bustling young gentlemen of the most sanitary of courses of 1915 agreed to circulate a round robin among the dozen or so budding lights of that department. It went around two or three times and then expired somewhere, probably in Gus Caffrey's or Tisdale's or Wardle's or Tiffany's or Holway's or Calderara's or Cowles' or Bailey's or Tolman's or Wareham's or Simons' possession. In March, 1920, it was started again by yours truly, but seems to have fallen by the wayside. Now then, through the columns of your energetic publication I should like to call the attention of the delinquent to the fact that it must resume its peregrinations or there will be trouble. Let him therefore be warned and heed, the boob (don't omit the comma in that last sentence).

Without enlarging the scope of this epistle unduly, I might remark in a casual way that I am now Washington Representative of the National Health Council and have to keep a watchful eye on the wayward Congressmen and other public officials. The Post Office Department has also drafted me as assistant to the Director of Welfare, where I spend a few hours a day as a dollar a year man. With best wishes, I am, Cordially yours,—

We certainly do have files here in our floral home and we only wish we had more letters like Jim's to tuck away until they call on us for more Class news.

While we are dealing with public officials, and especially those in Course XI, we'll insert here the long awaited letter from Ellis Tisdale, more popularly known as "Tis." "Tis," as you will recall, is director of the Division of Sanitary Engineering of the Department of Health of the State of West Virginia. He dashes off the following:

"Dear Tommy: Looking over the TECHNOLOGY REVIEW which just came in, has stimulated me to recall my promise and start a letter to you. I threatened to do this months ago when I returned my card just after Wardle left West Virginia to go to Tulsa, Oklahoma, with Bill Holway who is in the sanitary engineering business for himself in Tulsa. However, you know how it is, if you don't do a thing when you think of it, it doesn't get done, so here goes for a few brief notes about my recent activities. I have been here in West Virginia five years now and as a sort of a milestone to check up some of the things the department has been attempting to put across, I got out the enclosed little book this spring to try and get action from the Legislature so that we would have a proper budget with which to work. You see this bulletin deals with "Reducing the Typhoid Toll in West Virginia" through instituting pure public water supplies, proper operation of filtration plants and adequate and safe disposal of human wastes throughout the State. Recently we have had a good toll of life due to other causes than typhoid fever. It's unhealthy to stroll around loose in certain counties on the Kentucky border at this particular time. No doubt you have noticed the recent action in sending Federal troops into the State to quell the disorders in the strike zone. It attracted the attention of the whole country, not at all to the credit of West Virginia.

I was in Boston during June representing this State at the meeting of the Association of State Sanitary Engineers. We had a good gathering with about forty States represented and it gave one an opportunity to meet the chief engineers from all sections of the country, North, East, South and West—and was mighty helpful in every way, particularly for us younger men who haven't the experience of the men who have been in the work a longer time. My work here is a mixture of sanitary engineering, human engineering, administration, lobbying and lecturing, so you can guess that it doesn't get at all monotonous. Also during the last couple of years I have served as secretary of the West Virginia Engineers' Association, and at this last session of Legislature we were able to get through a Registration Law for Engineers. The Governor makes the appointment with the Board within the next few days.

I can't close, of course, without mentioning Ruth Virginia who was one year old this past month. She does her part to make life interesting for us. Your kiddo must be old enough to go to school when it opens in September.—Sam Tolman is also sticking to sanitary engineering work, being with the Sanitary District of Chicago handling activated sludge plants and trade wastes disposal. Tech didn't turn out many sanitary engineers

this past two years, consequently I had to look elsewhere for men to help me. Both my assistants are fine fellows from the University of Pennsylvania. Best regards to yourself and your wife from us both. "Tis'."

The booklet to which he refers makes very interesting reading, even if you are not a plumber, and I am sure that those of the Class who are particularly interested could obtain copies by writing to "Tis" at Charleston. We saw in the Boston papers about his speech at the Boston Convention and were hoping that he would call on us, but evidently he was too busy.

The last outside letter we have comes from the old Course I athlete (not Mexican — say what you will), Charles Lester Morse, home city, Lancaster, N. H. "Les" is another one of those who is still holding down the same job, but we'll let him tell it in his own quaint way. The epistle (for it is one) comes from McCook Field, Dayton, Ohio, and reads thusly (if I can read it right):

"Dear Howard: Have read with great interest the 1915 news in the REVIEW and it's great to get a line on the boys. Keep up the good work. I'm still in the Air Service at the Headquarters of the Engineering Division of the Air Service. Have charge of all the wind tunnel models and aerofoils and the reports, etc. It's quite interesting and in addition gives me a chance to keep up on engineering, as I had a little design work which consisted of designing the fusilage of a training plane to be built here.

There are quite a few Tech boys here of various classes. We have quite an aggregation of Morses — in fact the greatest aggregation assembled under one tent, including Johnny Morse, '14, Henry Morse, '16, whom you will remember as quite a wrestler, and myself. Then there is Freddy Hewes of '19 who has just passed the Navy Civil Engineer's exam, which was held under "Hen" Nieman's watchful eye. Bolton, '16, and Niles, '17, and Robillard, '20, are also here. Lieutenant Hegerberger, '17, and Caldwell, '10, are a couple of others. It's a great place and not at all like the army. We have to punch a time-clock and we don't live on the post, which is only two miles from the center of the city. In fact the only thing that reminds you that you're in the army is the uniform during the day and the officer of the day job once a month, which I'm holding down today.

We have quite an interesting bunch of planes — including a Thomas-Morse — no comments necessary when combined with two such great names, which moves with the slightly, accelerated motion of 164 miles per hour and climbs 10,000 feet in five minutes without military load. I'm in hopes to fly that before many more days, as it was just put on the line for incidental flying having been under test for quite a while.

I tried to get Andy to come out here, but he's inclined to be a mole and insists on going back to the ozone under the Hudson River, poor Andy working in the tunnels where he is like the poor Eskimoes that don't see daylight for months at a time.

I have been out here since February, 1919, and that's about as long as they let you stay — especially at a good place.

George used to write me once in a while, but I guess he's so busy figuring out the Unions that he hasn't time any more. Nice boy George, hasn't changed a bit since I roomed with him, except that he has a hair lip now. If you see him tell him I was inquiring about his 'whereabouts.'

That man Frank Scully is always so busy when he hits Dayton that I never see him. I wonder how come.

How's Barbara and the child, or is it children? Give her my best.

I was at the Tech wind tunnel last fall for three months and in my wandering around Boston saw Larry Quirk, Henry Daley and Harry Murphy. They all looked just the same. It's darn good to run into the old bunch. If any of them are out this way, tell them to call me up at McCook Field. Write if you have time."

Les' letter was entirely unexpected and therefore all the more appreciated. It helps to forgive him for not calling us up when he was stationed at Technology last year.

Probably by the time this REVIEW is in your hands you will have received a notice that your Class dues for the coming year are due. It is our intention, when the cards are received back, to have published a little book giving the names and addresses to all the "live" members of the Class of 1915. By "live" we mean those who have paid their dues or intend to do so and who wish to be affiliated with the Class. If this register of the Class is to be worth anything every one must not only return his card but get after all of his classmates that he sees or to whom he writes. Last year something like 225 paid their dues out of 650 listed in the Class. This year we hope for an even better percentage.

Therefore, heed ye this warning and start saving up for the \$2 plus the amount you'll give for the athletic fund.

Warning: The news for the next issue closes December 15, so if you want the Class to make a better showing give us some news or scandal before that date.

The following changes of address have been received:

Charles G. Norton, 3416 East 135th Street, Cleveland, Ohio; Kenneth W. Roy, care Turl Iron and Gas Co., Newburgh, N. Y.; Charles J. Ward, care Ohio Stadium Office, Ohio State University, Columbus, Ohio; Albert V. DeBeech, 600 West 59th Street, New York, N. Y.; Howard L. King, 144 Lafayette Avenue, Brooklyn, N. Y.; Burnham E. Field, Carbide and Carbon Research Laboratory Inc., American Chicle Building, Long Island City, N. Y.; Marshall B. Dalton, Columbia National Bank Building, Pittsburgh, Pa.; Bowman S. Atkins, 53 University Street, Brookline, Mass.; Fred L. Cook, 793 Crescent Avenue, Buffalo, N. Y.; Vernon T. Stewart, 44 St. Luke's Place, Montclair, N. J.

1916

CHARLES W. LAWRENCE, *Secretary*, 85 Islington Road, Auburndale, Mass.

E. H. CLARKSON, JR., *Assistant Secretary*, 315 Court Street, Clarksdale, Mass.

Reunions are still uppermost in our minds at the present time. Some are thinking of the one past, others of us are planning and looking forward to the ones coming in the future. This is not only because of the good times we have at them, but also because reunions are the real life of the Class.

Earl Edwards enclosed several snapshots of last June's reunion, some of which are herewith published, along with the attached letter: "It is hardly necessary for me to say what a good time we had at the outing, as I don't see how it could have been improved upon, under the circumstances. Believe me, I'll be there strong at the next affair, even if I have to borrow the money to get there. Yours for '200 in 1925.'"

The secretary wants to acknowledge the debt he owes H. P. Claussen and Tom Little for the loyal way they came to the rescue and helped put the reunion across to success when his own motive power failed temporarily. The whole credit for what was accomplished belongs to them alone and he feels the rest of the Class should know of it, too.

Plans for the next reunion are being even now discussed although no announcement can be forthcoming for some time yet. Every man with an idea should turn it in as soon as possible and keep them coming, for from these ideas a splendid get-together is made possible and we can not only have the best kind of a time, but also be able to do good work with the other Classes which meet at that time. At this reunion we plan to have the biggest number of sixteeners together that have assembled since we as a Class passed from the halls of the old Stute.

One suggestion of exceptional merit has been made, namely that we mark each reunion with some gift or other memorial to the Institute. If we did nothing more than present a picture or purchase some piece of apparatus for the Institute, or possibly provide a scholarship for a few years, then we would really present a precedent that would make our alma mater proud of us, and succeeding Classes try to emulate. Think it over and send in your opinion.

The photogravure section for 1916 has had a most modest beginning this month, largely from lack of photographs suitable for photo engraving. Let's not hesitate to send in any and all snapshots of yourselves at your job or with the family and if possible we will publish them. They may be quite common-place to you, but your classmate in other parts of the world wants to see you and know what you are doing, and the cheer that a picture and word from you can bring. *Send 'em in.*

Dan Comiskey writes from Santa Fe, New Mexico to Eddie Clarkson: "Dear Eddie, Just received my copy of the REVIEW and only wish I could have been at the reunion, but for the love of Mike, Eddie, please retain me as a member of Sixteen, once and for all. (Complied with.) I am still holding forth in New Mexico on Federal Aid highway construction with headquarters at Santa Fe. Maybe some day we will have our 7000 mile highway system improved in most parts. What is Bill Farthing's El Paso address?"

Bill Farthing apparently has moved in the past few months, for he is last reported in Key West Florida with the Texas Company. Eddie Clarkson is now in the upper fringe of the Sunny South, having accepted a position as manager of a large cotton plantation near Clarksdale, Miss. His street address is 315 Court Street. Eddie by the way is a successful business promoter, for when the Massachusetts headlight law went into effect in September of this year Eddie had organized a company with some other Tech men to adjust lights in conformity to the law. Eddie did a rushing business which lasted for several weeks and won considerable favorable commendation, from prominent business men whose machines he had adjusted, for his foresight and success. Here's wishing that he repeats on a still greater scale. Next issue Eddie will tell us about life on a plantation, and the complex problems of handling large gangs of negroes, all illustrated with suitable anecdotes and pictures.

Kemmerton Dean recently returned from a successful trip to France with the junior partner of his firm Sanders & Company, where they were watching with keen interest the cotton situation of the industrial country in northern France. We hope to have a good account of all he saw and heard in the land of gaiety and strong tobacco before the next issue of the REVIEW in January.

G. P. Allen has again written from Daytona, Florida about the hotel business and character of the country in Florida. A winter motoring trip to Florida ought to be one of the most attractive outings a person could have, but note what Allen has to say: "You ask for something about Daytona and the hotel business. Perhaps the first thing to tell you is where I am, and how you reach me. Daytona is 113 miles south of Jacksonville on the east coast of Florida. South of us is Palm Beach, 196 miles; Miami, 266 miles; and Key West, 412 miles. To the southwest are Orlando, 68 miles; Tampa, 165 miles; and St. Petersburg, 206 miles. By rail we are thirty hours from New York, and a four-day sail from New York to Jacksonville. Of course if you have just bought a new 'Flivver Four in a Line' and must drive down let me say that the tourists come in night after night and solemnly swear 'never again.' The best way to drive to Florida is to ship your car on the boat from either New York, or Baltimore to Jacksonville. But, if you really must drive, there are three ways of entering Florida from Augusta, Ga. These are by the way of either Valdosta, Waycross, or Savannah. Of the three, the Savannah route is the best. One tourist, in speaking of the Waycross route, said that he had been out of sight of land for three hours.

Daytona, with Daytona Beach and Seabreeze, form the Triple Cities. Daytona Beach and Seabreeze are on a peninsula about twenty miles long and half a mile wide. On the east is the Atlantic and on the west is the Halifax River, a part of the inland waterway from Jacksonville to Miami. The Halifax is half a mile wide with Daytona located on the west bank. At only two months of the year does Daytona have its census population of 6,000. This is during the interval between seasons. In May the northern tourists have gone and the Floridians have not arrived. Again, in October, the Floridians have taken their departure and we have a breathing spell before the tourists have arrived. During the winter season the population gets as high as 10,000 or 12,000. Our average winter temperature is seventy-one, and the average summer temperature is eighty-five. At no time is the heat oppressive on account of the low humidity.

If I should attempt to tell you of the beauties of the Halifax country I should have to turn a short description into a long Chamber of Commerce circular. Let me mention however, our beach. At low tide it is 500 feet wide and you can drive for twenty miles. There is only a rise of about two and a half feet in the five hundred so we have nearly a level stretch. It was on this natural speedway that the Dusenbury made 156 miles an hour last year. This year two makes of cars have broken world's records for stock cars.

I was greatly surprised when I attended the reunion to find how business had slowed down. Here we are building over two houses a day, and there is a bond issue for \$450,000 for new streets. We have just completed a new city hall. One of our citizens has just donated \$60,000 to be used for a free bridge over the Halifax River. Daytona has forty American and European hotels. I knew absolutely nothing about a hotel when we bought this one. It is interesting, exacting work. In fact, it reminds me of the ad of the Old Howard in the Boston papers. 'Something doing every minute, 1.00 to 11.00.' I have learned to keep quiet in twenty languages and I am fast reaching the point where I can tell a man 'where he can go for four cents' without exactly doing so. I like the business, even though I have no holidays or Sundays. My Tech training has come in

mighty handy. I don't know how I would have got a seven-inch pipe up through a sloping roof if it had not been for my 'Descrip.' Our hotel has seventy rooms and is located on the river front. We are open the year round."

"Jack" Burbank has set a most useful precedent in sending in dope about other Sixteeners and the secretary is most grateful for this and similar contributions. Jack is in the employ of the Barney-Ahlers Construction Corporation at 110 West 40th Street, but he too modestly refrains from telling anything about himself.

"Dear Charlie: Thinking that perhaps our friend and classmate 'Walt' Binger has been too modest to send you the enclosed article about his recent successful venture in tall concrete buildings, I send the same to you. You may find some facts in this article which may be of interest to pass on to the rest of the Class in the next TECHNOLOGY REVIEW."

Walter Binger's article which was published in the *Contractor's Atlas*, follows:

EIGHTEEN STORIES OF CONCRETE

Hide and Leather Building, the Tallest Concrete Building in the United States

BY WALTER D. BINGER, Ass. M. Am. Soc. C. E.

Vice-President, Thompson & Binger, Inc., New York City.

"It has often been stated that reinforced concrete as a type of construction, would never be suitable for buildings of great height. That height need not be a limiting factor has been demonstrated in the Hide and Leather Building recently completed by our organization.

Hardly secondary in interest and importance is the fact that, in spite of the record-breaking height of the building, the work was carried on successfully through the winter months. While precautions and necessary refinements in methods were observed in the winter work, the construction of this building has proven that even for unusually high structures, cold weather work is a commercial success.

Perhaps the principal objection advanced against reinforced concrete for high buildings is that columns of the lower floors would need to be uneconomically large. This objection was overcome by the use of a rich mixture (1:1½:3) for columns, together with the use of specially high strength spiral hooping.

The use of brick and tile curtain walls has always been popular for reinforced concrete buildings — sometimes because of building code requirements which impose the same wall-thickness for concrete as for brick or tile. In this building, advantage was taken of the rule that in New York City 8-inch concrete walls are allowed as equivalent of 12-inch brick — a considerable saving in a building of this size.

Flat slab design and the use of steel forms for columns and floor slabs, resulted in smooth, even concrete surfaces, thus contributing much to the light, sanitary and clean-cut appearance of the interior of the building.

For a concrete building of such height and prominence it was realized that a distinctive and beautiful surface finish was a necessity. In order to preserve unity of treatment in the finish, it was decided to obtain the desired effect in the concrete itself by tooling a specially prepared facing mixture of the walls of the two lower stories.

The concrete of the structural part of walls, columns and floors was made with gray Atlas Portland cement and the regulation commercial aggregates. The facing mixture was composed of Atlas-White Portland cement and colored aggregate consisting of rose quartz and feldspar chips, mixed one part cement and two parts of aggregate.

There has always existed a difficulty in placing conveniently and economically a facing mixture of concrete monolithically with the balance of the backing concrete. The commonly accepted method has been the use of facing boards — a troublesome, costly and sometimes only partially successful expedient.

In the placing of the facing mixture on this building, a much more convenient and practical method was employed. In place of a movable facing board, metal lath was wired to the outer reinforcing bars, leaving a space of 1½ to 2 inches between it and the outer forms. This space, usually filled with ordinary concrete as fireproofing, was used for the facing mixture.

By keeping the level of the facing concrete higher than the backing concrete, no difficulty was experienced in securing a continuous face showing none of the backing.

Careful tamping of the facing mixture was accomplished by means of $\frac{1}{2}$ -inch bars with T-heads.

Any slight defects in the surface were pointed up after the forms were removed. The concrete was then allowed to cure all through the winter before the tooling was done. This consisted of bush hammering to expose the aggregate. The resulting surface is a strikingly exact reproduction of natural granite.

The upper stories were surfaced by grinding with carborundum. Coating with a colorless waterproofing fluid will preserve the even, pleasing color of the surface.

It is to be hoped that the Hide and Leather Building will have its part in demonstrating to layman, architect and engineer, the possibilities of reinforced concrete for high buildings and buildings of attractive appearance."

Another loyal '16-er sent in a copy of *The Foochow Trenches*, a missionary publication from the firing line of the foreign missions in China. It contains the announcement of arrival of "Rev. and Mrs. R. B. Blakeney, Graduate of Boston Tech and Boston Theology; a fine combination, live wire engineer and enthusiastic minister." Many of us remember Blakeney's prowess as a sanitary engineer and wrestler in our early years at Tech, also his enthusiasm for fine literature and religious questions. It is therefore not surprising that he has made his calling that of a missionary to people whom he is equipped to help both in the church and in a practical way in their daily lives.

Saul A. Hoffman writes from Chicago:

"My dear Lawrance and other '16 mates: I admit I have neglected old '16 considerably of late, but the fact remains that the present tells, and the future is vast, in which can be proven our loyalty to '16, *n'est-ce-pas?*"

Regarding myself, I have been so busy that even my fraternity brothers here are wondering and thinking some one of the 'fair' sex has finally made me capitulate and is consuming my spare moments. But, alas, I am even too busy for them. I am extremely sorry not to have been able to attend our five-year reunion, but shall remember the next regardless of conditions. I am at present in the employ of Morris & Company (packers) where I have been since serving in the Army. I have recently been promoted to assistant to the chief chemist and technical director of all branch plants (Headquarters, Chicago). I am not forgetting Tech when in need of men for our technical department. I am the only Tech man here at the present time but I intend to have a good representation here soon. Expect to be in Boston soon and will drop over to Cambridge. I also intend being at the American Chemical Society meetings in New York and the Exposition this year. I hope I shall run into some of our 'bunch'.

You will find enclosed my \$3.00 for the dues as usual."

That "check enclosed as usual" is great stuff, and the secretary can't help wishing that one hundred per cent of the Class would do the same unasked.

In the matrimonial line Sixteen has kept her own well in the past few months, for we have the following announcements. First in the *Transcript* of June 27, 1921:

"Former Mayor Harry B. Yeaton of Plymouth, N. H., and Mrs. Yeaton announce the marriage of their daughter, Miss Ruth A. Yeaton, to Walter H. Junkins, son of Mrs. Helen A. Junkins of Portsmouth. The ceremony on Saturday took place at the home of the bride's parents on South Street, and was performed by Rev. Lucius H. Thayer, D.D., pastor of the North Congregational Church. The bride was attended by her cousin, Miss Elinor Rand of Portsmouth, and Professor Philip O. Yeaton of Lowell, the bride's brother, was best man. The Misses Mabelle Junkins, Carolyn Yeaton, Marion and Frances Grace were ribbon bearers. A reception followed the ceremony. The bride is a graduate of Mt. Holyoke College and Cornell University. The bridegroom was graduated from Dartmouth College in 1914 and studied at the Massachusetts Institute of Technology, receiving his sanitary engineer degree in 1916. Following a wedding trip to the White Mountains Mr. and Mrs. Junkins will live in York, where the bridegroom has been appointed health officer."

Dr. and Mrs. Horace Ellwood Bragdon announce the marriage of their daughter Gretchen Bragden to Mr. John Gore on October first, the ceremony taking place in East Boston.

Also the announcement of the marriage of Mr. Leonard Stone, II, to Miss Dorothy Stearns Gleason, daughter of Mr. and Mrs. Charles Monroe Gleason of New York City, on October eighth.

Received at the REVIEW office August 22, an announcement of the marriage of

Alexander Martin, Jr., VI, Lieutenant, United States Navy and Miss Laura Bilyeu, Lakewood, N. J.

Mr. and Mrs. Melvin D. Parsons announce the marriage of their daughter Eva Simpson to Mr. James Harold Murdough on Saturday, August 27, 1921 in New York City. Mr. and Mrs. Murdough will be at home after September 15 at Still Water, Okla.

Rumor has it that Frank Hastie has a daughter. This is merely hearsay evidence as Frank seems to have hidden himself from us all since his marriage. Eddie Clarkson understands however, that Frank has become the proverbial hard-boiled army captain of Engineers.

A daughter Margaret Netta was born in April to Mr. and Mrs. William Harold (Flip) Fleming in Akron, Ohio. The daughter is progressing most satisfactorily at the last reports and a great admirer of her older brother William Harold, Jr.

Charlie Reed has announced the birth of a son whose name is rumored to be Charles Junior.

John R. Freeman, Jr., is at present an exchange "researcher" from the United States Bureau of Standards at the National Physical Laboratory, Teddington, near London, England, where he is working out some problems in metallurgy under the immediate supervision of Dr. Rosenhain. Freeman went over in June along with the delegation from the American National Engineering Societies to the corresponding societies of England and France and shared in the hospitalities accorded them. He subsequently visited Germany to inspect some of the notable research laboratories and later made a similar inspection in France. He returns to the Bureau of Standards in January.

ADDRESS CHANGES

L. Besly, 201 High Street, Oshkosh, Wis.; William H. Boyd, R. F. D. 1, Moseley, Va.; Willard R. Crandall, Southern Cotton Oil Company, 312 East Bay Street, Savannah, Ga.; William W. Dodge, Jr., Dodge & Sons, Victor Building, Washington, D. C.; William J. Farthing, care The Texas Company, Key West, Fla.; Edgar S. Freed, 202d Street and 10th Avenue, New York, N. Y.; Howard A. Hands, 509 Coal Street, Wilksburg, Pa.; Edgar F. Hanford, 158 Ashmont Street, Boston 24, Mass.; Capt. Albert C. Lieber, Jr., Camp A. A. Humphreys, Va.; Lieut. Alexander Martin, Jr., Public Works Office, Naval Air Station, Lakehurst, N. J.; James H. Murdough, Stillwater, Okla.; Robert E. Naumburg, Saco-Lowell Company, Lowell Mass.; Olen C. Norris, 140 Market Street, Campello, Mass.; T. E. Raymond, 110 Prescott Street, Clinton, Mass.; John D. Robertson, 185 Highland Street, Taunton, Mass.; Melville H. Rood, 20 Hawthorne Street, Boston, Mass.; George T. Rooney, 59 Clarendon Street, Boston, Mass.; George W. Tuttle 800 Seventh Avenue, Buffalo, N. Y.

1917

HOME OFFICE, ROOM 3-208, M. I. T.

In accordance with our usual custom we have a miscellaneous assortment of matrimonial notices to announce and also it is our pleasant duty to indite a few words concerning those who have completed their arrangements for a domestic life which we trust will not cut them off from us and destroy our former pleasant relations. The following is from *The Transcript* of sometime ago, concerning Syd Batchelder who is located in South Barre, Mass., with the South Barre Wool Combing Company.

"At a wedding which took place at the home of Mr. and Mrs. Ralph W. Redman, 52 Spruce Street, Dedham, on Tuesday evening, their daughter, Miss Chestina Josephine Redman, was united in marriage to Sydney Spalding Batchelder of Barre. The ceremony was performed by Rev. William H. Parker, pastor of the Morgan Memorial Church at Fairhaven.

Dr. Hollis G. Batchelder of Dedham, a brother of the bridegroom, was the best man; Mrs. Grace Redman Warren of Waltham, a sister of the bride, was the matron of honor, and Barbara Batchelder of Dedham, a niece of the bridegroom, was flower girl. There were no ushers.

A reception followed the ceremony. Mr. and Mrs. Batchelder will make their home in Barre. The bride is a graduate of Wheaton College, Class of 1921. The bridegroom, who

was graduated from the Massachusetts Institute of Technology, Class of 1917, served in the World War as a lieutenant in the Royal Flying Corps of England."

The Baltimore Evening Sun, one day last summer, printed the following headline: "Engagement of Miss Ruth Maurice Patton to Mr. Edgar Staley Gorrell, war hero and at one time chief of our staff of Air Service, announced."

The article reads:

"Announcement has been made of the engagement of Miss Ruth Maurice Patton daughter of Mr. and Mrs. John Beecher Patton, of New York, and Mr. Edgar Staley Gorrell, who was at one time chief of staff of the Air Service of the American Expeditionary Forces, with the rank of colonel. Mr. Gorrell is a son of Mr. and Mrs. Charles E. Gorrell of 2115 North Charles Street. He is a graduate of West Point and was also a student at the Massachusetts Institute of Technology. He served with the army as an aviator under General Funston on the Mexican border in 1916 and, with Lieutenant Darguo made a record flight, as to time in the air and distance travelled at that time. During that service he was once lost for several days and it was thought that he had been killed. In France he won the Distinguished Service Medal, the British D. S. O. and the French Legion of Honor. The wedding will take place some time in the fall."

We are again indebted to *The Transcript* for the following notice of Art Gilmour's wedding. It will be of interest to know that he was attended by two 1917 men whose names are mentioned.

Miss Charlotte Barnes, daughter of Mrs. Charles Allison Barnes of Winchester, is to be married this evening in the First Baptist Church in that town, to Arthur Emerson Gilmour. Palms and pink roses will form the special decorations at the church, to mark the occasion. Rev. Clifton H. Wolcott, pastor of the church, will officiate.

"Miss Barnes has been principal of the Washington School in Winchester and is president of the Winchester Teachers' Club. The bridegroom, Mr. Gilmour, who is a Technology graduate, went to France, in the World War, and served with the Seventy-Seventh Division of the 304th Artillery. He is now connected with the Carpenter Morton Company of Boston.

Guests will be seated by Chester Ames of Winthrop and Kenneth Mason Childs of Needham, both of whom were the bridegroom's classmates at Tech; together with Frank W. McLean of Winchester and Walter Ambrose of Brookline. William Wesley Gilmour of West Somerville serves as best man. A reception is to follow the church ceremony."

This notice came some time ago but we cannot give any further news although we are hoping to have Jimmy drop in on us some day soon and tell us all about it:

"Mr. and Mrs. John F. Sheehan request the honor of your presence at the marriage of their daughter Helen Christina to Mr. James William Doon on Thursday morning, September the first, nineteen hundred and twenty-one at ten o'clock, St. Patrick's Church, Natick, Massachusetts."

And speaking of invitations, we received the following concerning our former track captain:

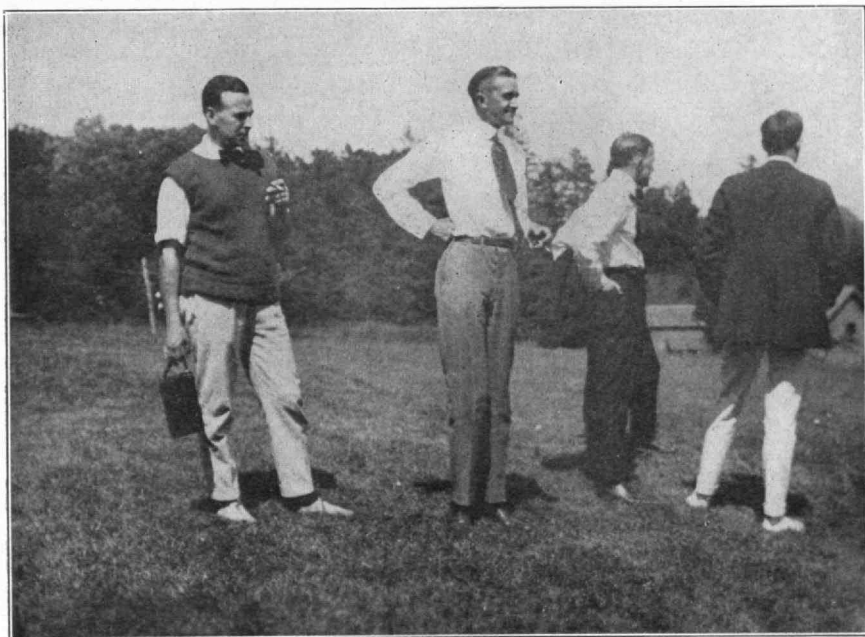
"Mr. and Mrs. James Francis Malone request the honour of your presence at the marriage of their daughter Josephine Gertrude to Mr. Francis Patrick O'Hara on Monday, September the fifth, nineteen hundred and twenty-one at half after nine o'clock, Sacred Heart Church, Watertown, Massachusetts."

Another contemporary notes:

"The wedding of Miss Katharine Partridge, eldest daughter of Mr. and Mrs. Frank T. Partridge, of 64 Amory Street, Brookline, and Crow Point, Hingham, to Mr. William Ayres Gray, Jr., M. I. T. '17, son of Mr. and Mrs. William Ayres Gray of Elizabeth, N. J., took place Saturday afternoon, October eighth, at four o'clock, at the Church of Our Saviour at Longwood, the Rev. Henry Knox Sherrill officiating. The bride, given in marriage by her father, wore her mother's wedding gown of white satin with old lace and orange blossoms. The veil was of tulle and worn over the face. The bouquet was of white roses and valley lilies and bouvardia in shower effect. The maid of honor, Miss Helen Partridge, younger sister of the bride, who comes out next winter, was gowned in jade green chiffon with cloth of silver sash. A brown velvet hat with a pink rose trimming it completed the costume. She carried ward roses. Mrs. R. W. Gregory, of Concord, N. H., was the matron of honor, and the bridesmaids were Miss Caroline Gray, cousin of the groom, and Miss Marion Townley, both of Elizabeth, N. J. The matron of honor and maids all wore rose-colored chiffon, with hats of brown velvet and pink roses, and



MR. AND MRS. G. P. ALLEN



1916 REUNION

Berke, "Rusty" White, Jack Freeman, Parsons (back)

carried pink roses and larkspur. The church was simply decorated in palms, white gladioli and chrysanthemums. The best man was Mr. Christian Slagle, of Montclair, N. J., and the ushers were Mr. Richard V. W. Partridge and Mr. Horace Partridge, brothers of the bride, Mr. Roger Clement, Mr. J. L. Gray, Jr., of New York, cousin of the groom, Mr. Richard Townley, of Elizabeth, N. J., and Mr. John DeBell of Cambridge. After a month's wedding tour, Mr. and Mrs. Gray are to make their home at Bigheart, Okla."

The recent efforts made to obtain a larger number of alumni members from the Class were productive of a number of letters and among them was the following on the stationery of the Homestead Association, Inc. of American Woolen Company, written at Shawsheen Village, Andover, and signed by D. H. McLellan, general manager: "To whoever is holding down the throne for 1917:

"Please tell me how come the reprint of 1917 notes. I never got it. Just send me a copy and I'll gladly remit the three Simoleons. I don't know what it's all about, but sure I want to join."

Under date of the twenty-ninth of August we forwarded him a copy of the reprint but to date we haven't seen the three Simoleons in any form which would be negotiable on a respectable bank.

We print the following from Deac Young, whose address is 1124 Republic Building, Chicago, Ill., and believe that this will be awarded first prize for the best contribution in this issue.

"*Dear Folks in the '17 Home Office:* I enclose check for \$3.00 which you should have had long ago — but better late than never. And you say you want 'dope' as well as 'dough.'

My name at Tech was 'Deac' Young — but those of you who knew me then would find me changed now. The reason? Chicago — I've been out here six months and it's a very wicked city indeed. Murders, hold-ups, kidnapping every day right on schedule. In one ward where the Italians hang out there is a genuine feud on; eighteen killings in six months and no arrests. There was a hold-up right in front of the apartment hotel where I am living one night last week and as two coppers gave chase we had to duck flying bullets. Verily the days of 'Old King Brady' and 'Nick Carter' had nothing on Chi today. But Chicago has its good points. My brother Herb, '19, and I take in a good semi-pro ball game every Sunday afternoon. There must be at least one hundred semi-pro teams here — the parks are full of diamonds and from the crowds that attend, it is hard to figure how the Cubs and White Sox get by.

I feel sorry for you fellows back in Boston who find such pleasure in a Mack Sennett comedy — they don't draw so well here because our beaches put some of Sennett's girls in the shade. The athletic stores sell nothing but one piece bathing suits which I suppose is to permit freer action when swimming; but I have noted that some, in fact many of the girls just go in wading. Why is it? In many ways I would like to be back in staid old Boston again. It's a darn good town after all; and I would give several dollars to be going out to the stadium with you all the afternoon that Center meets Harvard.

The least said about business the better right now. But it's going to pick up in the fall and we will get our share.

Best wishes to you all and I trust that the other members of 1917 have not been as slow in coming across as I have. Sincerely, 'Deac' Young."

Captain and Mrs. Frank B. Hastie, of Camp Grant, Ill., sent us the following:

"Announcing the birth of a daughter on July 14. Weight, seven and three-quarters pounds; name, Cecile Amelie."

Ted Bernard read this over in the proof sheets, and promptly sent home to send us in the following announcement: "To announce the birth of their son, David George, on October thirtieth, 1921. Mr. and Mrs. Frederick Bernard."

If this continues, the Class will soon pass the seven hundred mark for membership.

Here's another letter which we think deserves second prize, from Tharratt G. Best:

"I am enclosing herewith application blank for membership in Technology Alumni Association, together with check in payment of dues for current year. I regret the matter has escaped my attention up to the present time. I feel greatly pleased and honored by being invited to become a member of the Association, for, while I was at Tech only a year following my graduation from Princeton in 1915, and prior to my enlistment in the American Field Ambulance Service in France, I cannot at any time but refer, with much

pride, to my relationship with the illustrious Class of 1917 as well as to that with the country's foremost technical school.

The past two years have found me roaming about in the oil-fields of the West, trying to acquire a working knowledge of the petroleum industry, and incidentally a little pin-money on the side. My career in oil began as a 'tool-dresser' or assistant driller, on a standard cable-tool rig, 'doing the heavy' with much initial enthusiasm, which, however, rather waned as the southwestern sun waxed warmer and the tools grew heavier. I ran the entire gamut of the trade, lingering for some time in the role of a 'rock-hound' or geologist, on plane-table work, but eventually wormed my way into the leasing end, a phase which requires considerable legal knowledge and which, of course, I did not possess. On the other hand there is no phase which demands such a thorough technical knowledge as this. It never occurred to me when I was fitting myself for an engineer's life while at Tech that I would eventually become a 'shyster' lawyer and 'lease-hound'. The whims of fate are surely strange and incomprehensible. Nevertheless, as the work is filled with adventure and excitement and most of the so-called 'oil maggots' get their start in this way, I am quite content with my present berth. With best regards to all, I am, Yours for Tech and '17, Tharratt Gilbert Best."

Speaking of legal lights, in that class we have the following about Sam Siegel, of the firm of Tracy & Siegel.

"The firm of Tracy & Siegel, patent attorneys (Registration No. 11609) announce the opening of their new law offices in the Washington & Federal Realty Building, 258 Washington Street, Boston, Mass. Mr. Tracy is a graduate of Boston College, with the degrees of A.B. and A.M. and of Georgetown Law School with the degrees of LL. B. and M.P.L. (master of patent law). He is a member of the Massachusetts and District of Columbia Bars, and a former assistant examiner in the United States Patent Office. Mr. Siegel is a graduate of the Massachusetts Institute of Technology, having received the degree of S.B. in Chemical Engineering. He is also a graduate of the Georgetown Law School with the degrees of LL.B. and M.P.L. and likewise a former assistant examiner in the United States Patent Office, and a member of the Bar of the District of Columbia.

The firm is admirably equipped by education and experience to render assistance in patent, trade mark, and copyright cases, and gladly extends its technical and legal service for consultation and prosecution of all patents and patent causes."

Speaking of members of the Class who are branching away from engineering, we have the announcement of the "Brock Concerts" which, as near as we can make out, are managed by Malcolm C. Brock and which must be pretty good, according to an extract of the program which is given below:

"On hearing of the decease of the Music League, a group of young men determined to keep alive the musical spirit of Akron and without trying to profit more than breaking even, to bring to Akron a few of the best artists so as to be within the pocketbook of all. The other young men have been forced to withdraw, but I am glad to announce a short course of three concerts.

Geraldine Farrar, star of the Metropolitan Opera, artist, actress and personality, assisted by Edgar Schofield, baritone; Ada Sassoli, harpist; Claude Gottlieb, accompanist—Saturday, October 22.

Fritz Kreisler, with his place in all our hearts, soldier and man, and violinist, accompanied by Carl Lamson — Wednesday, January 11.

All concerts will be held at Goodyear Auditorium. The perfect acoustics of this gem of a theater as compared to the roomy echoes of the Armory or the Goodyear Gymnasium, will make every seat of equal value. The public sale of season tickets will be opened at Dale's Victrola Shop, October 1. Orders for season tickets will be received by mail and filled at once in the order of receipt. We suggest you write your check and send in immediately, as there are only one thousand six hundred seats available.

Make out check in my name. Indicate first, second and third preference, and mail your order early, to Dale's, 128 South Main Street.—Malcolm C. Brock."

We particularly enjoy the first sentence of the last paragraph.

Mack Angus writes us a letter from Philadelphia and we print a few extracts below:

"Dear Home Office Seekers: After receiving your sad news about the activities of 1916, I decided to send along the check which has been several times requested. You will find it enclosed. I am still at the same job that I had when all (?) of us met at the reunion, and can add very little to what I told you then of my work. Construction work in the shore

stations of the Navy is very slack, just as construction work all over the country is slack. Oh! By the way. I have a daughter a little over a year old whom I don't believe any of you have heard of.

Cady and Henderson are still at the Philadelphia Yard, and I see them quite frequently. Very truly yours, W. Mack Angus."

The following letter from E. C. Matthews takes the brevity prize for the month:

"Gentlemen: Enclosing three dollars in payment of alumni dues. Elmer C. Matthews."

Neal Tourtellotte, representative of the 1917 longshoremen, says that he is now "starting on my career as a safety engineer on the Seattle waterfront. My work is not, as one would imagine, mostly mechanical safeguarding, but rather the opposite — getting the men in the habit of 'safety first' and watching out for themselves. Our longshoremen here are a mighty fine bunch of workmen but they are a happy-go-lucky bunch and take too many chances. If I can persuade them to be careful I think that the accident rate will be reduced materially."

H. H. Perry, who took his M. S. with our Class, briefly covers the last few years of his life as follows: He is now located with the Industrial Works at Bay City, Mich., which manufactures wrecking, locomotive and freight cranes, pile drivers, transfer tables, etc. "For your information, I have since my return from the Army in February, 1919, been working as manager's assistant of the Industrial Works, builders of cranes and pile drivers. On October 16, 1920 I married Miss Lucy B. Clark, Vassar, 1918, and am living at 410 Green Avenue, Bay City."

Bob Gay has notified us that he is still with the R. N. Gay Battery Company, distributors of the Standard Storage Battery in Waco, Texas. He says, in brief: "You can see from the letterhead above what I am doing. We have a nice little wholesale business and are going in after the exporting game, shipping supplies into Old Mexico at the present time."

The Honorable Richard T. Whitney of Tulsa, Okla., who claims to be located with the American Appraisal Company in that city, and concerning which we can obtain no information either from him or from any other legitimate source, writes us: "Your extraordinary howl has not caused me to sit down and weep over the 1917 notes, probably due to the fact that I haven't seen them. I have no doubt, however, they are something to weep about, but I can assure you that I am about to shed tears over the parting with the enclosed check. Perhaps it will entitle me to have an opportunity to read these notes to which you refer and I can assure you that unless it does, the home office will not be the only one to howl."

You asked for a line for the REVIEW; very well, here is mine: Came out West a year ago, been broke ever since, expect to be for some time to come; represent the American Appraisal Company and work like the devil." As we said above, repeated inquiries on our part with regard to just what sort of a game the American Appraisal Company is trying to put over on the dear public, have obtained nothing from him.

On a recent trip to New York, one of our representatives had a talk with Gus Farnsworth, who is still with Miller, Franklin & Bassitt and with C. D. Proctor, who is with the Standard Oil Company. He also called upon the secretary of the Technology Club who is still engaged in the manufacture of Fairy Soap and Gold Dust. He tried to locate several other members of the Class on the telephone and was told by the home office of Ford, Bacon & Davis that Mr. Tuttle was not in and probably would not be around until sometime during the next week, which leads us to believe that perhaps people do not work as hard in New York as they claim. A call at the New York office of the Astoria Mahogany Company gave him the information that Mr. Stockman was not there but could be reached at the Long Island plant. Upon telephoning the Long Island plant he was told to call another number. At this other number Mr. Stockman had "just left" but was certain to be at a fourth number. At the fourth number they had never seen him. Nevertheless, as we have mentioned before, Stocky is marine superintendent of this company and although we hate to print it, we feel it is our duty to inform the Class of the following item which appeared in a recent edition of *The New York Times*.

"A fire yesterday afternoon, the third within six weeks, did \$3,000 damage at the plant of the Astoria Mahogany Company, at Winthrop Street, and Riker Avenue, Long Island City. The fire, which occurred after most of the workmen had left the plant, was located in a pile of mahogany logs near the center of the company's storage yards, fronting on

Eighth Avenue, and about two blocks from the location of the last fire. Because of the dangerous location of the fire, two alarms were sent in, bringing fire companies from all sections of Long Island City and Astoria.

Remsen T. Williams, a member of the firm, declared the frequency of fire at the establishment was a mystery to the management. The first fire, in a dangerous location in the planing mill, was extinguished with a loss of several thousand dollars. The second fire destroyed the storage house and a considerable quantity of finished veneer, causing a loss of more than fifty thousand dollars."

During the last quarter we were in receipt of Volume 1, No. 9 of *Dixie*, which in large type proclaims itself as "Founded and Edited by E. G. Senter, published monthly at Arlington, Texas. Subscription price, \$1.00 per year; ten cents the copy." As is the case with publications of other members of the Class, we fully believe that the editor would be glad to send complimentary copies to friends who write requesting same. This particular issue, the July number, we commend to your special attention, inasmuch as the first page contains a poem by the editor and also a few attacks on the Federal Reserve Board. It follows former principles of *The Tech* in that the communications are the spiciest part of the issue.

Early in September we were informed by reliable sources that A. K. Althouse sailed on August 27 from Liverpool, on the S.S. "Carmania," after having spent about six weeks in Germany in conference with Herr Stinnes, being at the time considering the matter of establishing foreign branches of his business. We wrote him at the time asking him to confirm or deny the information and also to supply anything further with regard to his actions abroad which would be fit to print in this issue of the REVIEW. The following letter came on stationery of A. K. Althouse & Company, Miners and Shippers of Coal and Coke, 417 Widener Building, Philadelphia, Pa.

"Acknowledging your kind favor of the ninth instant, be advised that you are correct in your report as I just returned from Europe sailing from Liverpool on the S.S. 'Carmania' after having spent about six weeks in Europe in conference with numerous business men in an endeavor to ascertain basic conditions as existing in Europe and thereby affecting our business. This was done in connection with our export coal business and other business which the writer is contemplating. Thanking you for your kind courtesy and trusting this information will suffice, I beg to remain, Very truly yours, A. K. Althouse."

Bob Erb, who was in the other day, tells us that Joe Gargan is now out of prison and back with the W. H. McElwain Company in Newport, N. H. making shoes. Previous to this time we have hesitated to say very much about our friend Gargan's occupation because we felt it to be a dangerous subject. The Faculty of Course XV seemed to resent any intimation that Joe was "making little ones out of big ones," and they vouch for the story that he went into the prison of his own free will, there set up a business and was honestly and legitimately profiteering on the prisoners, who were turning out some mighty good footwear for him. We congratulate Joe on his release and feel that if any one desires to learn anything further with regard to his recent sojourn he should be the man to tell them.

Claude Roberts, now Captain Roberts of the Ordnance Department, paid the Home Office a visit to see if Tech Show was still fighting *The Tech*.

Along the line of Army gossip, we have had a visit from Ray Brooks, who has been transferred from Kelly Field to the Field Officers School at Langley Field, Va. Ray is still a captain in the Air Service and at the time we saw him he expected that his detail at Langley Field would include work in connection with the bombing tests off the Virginia Capes.

While on the subject of the military members of the Class, it is now our pleasure to receive frequent visits from Captains Jesse A. Roberts, Ordnance Department, and L. L. Clayton, Signal Corps. The former is a student in the Ordnance School of Application which is now maintained by the Institute in conjunction with the Watertown Arsenal authorities and the latter is Assistant Professor of Military Science and Tactics at the Institute. It seems natural to see Clayton drilling with the freshmen.

A recent letter to one of the members of the Class from E. L. ("Bud") Kaula '16, who is with the Texas Company in Sydney, Australia, tells us that Bill Hunter was in Melbourne about the first of September and was expected back in Sydney very soon. Bud says, "I am a director of the Company he organized here, the President Suspender

Company, Ltd. They have started a factory to assemble braces." This evidently shows that Bill is upholding the reputation of the Class on the other side of the globe.

Our representatives at the Chemical Exposition found a goodly number of Course V and Xites engaged in their popular pass-time at fooling the public. Ken Bell and Johnny Holton were holding forth on the glories of Lewis, Green, McAdams and Knowland and trying to convince buyers that a bottle of water which they had on exhibition was recovered solvent. We understand that Ken had a bad time inasmuch as he extracted a bottle of Alcorub from the United States Industrial Chemical (formerly Alcohol) Company and neglected to note on the label that taken internally the mixture "produces violent gastric disturbances." He is all recovered by this time, however.

Bill Leach was on to represent the Mathieson Alkali Works and does not seem to be worrying much about business conditions, so far as one could tell from his circumference.

Austin Kuhns was flying from one booth to another representing three or four of the exhibiting companies; that is, when he was not getting free hand-outs of "Cheerio" from the young lady decoy used by one of the exhibitors.

McQuaid came all the way from Edgewood Arsenal and brought greetings from Ed Parker and Smith, Course VI, who could not get shore leave.

We saw M. J. Dumit for the first time since graduation. He is with the Brown Company at Latuque, Quebec, where the spring ends the fourth of July and winter begins the fifteenth of August. Instead of playing golf (there being too many tree hazards) he goes out moose hunting every Saturday afternoon.

Speaking of moose, Nig Sewall writes in from East Angus, Quebec: "We have just started in with our winter with heavy white frosts every night and the roads beginning to freeze. But it is the weather to get the old gun out every week-end. There are ten of us who have a camp up in the bush on the company's limits and almost every week-end we are out there after deer, bear, partridge, and rabbit. Went out about a month ago for partridge but decided to take the pistol along in case I should see any big game. Was lucky enough to get sight of three deer feeding. I fired at the biggest one with the pistol and got one more running shot before it went out of sight. Got a lucky shot in the brain and brought it down; a two hundred and twenty-five pound doe. By gee, it was good eating, but I had to work for it as I was seven miles from town, but it was worth it. Have got a lot of partridge and a few rabbits so far this season. Six of us are going out this week-end. It's the life for me." The only thing that surprised us was that Nig's catch turned out to be a *doe* moose.

A. W. Joslin dropped into the Home Office on a furlough from Cuba where he has been with the United Fruit, Northern Railway Company and Cuba Cane Sugar Corporation; the latter company runs their own railway system, which had Joslin as its big boss. About the only thing we could coax out of him was the fact that one night when he was tearing down a hillside at sixty miles an hour, he was thrown from his seat by the car jumping the tracks. His seat was a box of dynamite. He says that Cuban sugar is in a pretty bad shape just now on account of the price drop, but then nobody goes to Cuba for sugar these days.

The recent exodus from the tropics was joined by Dick Lyons, who has been doing oil prospecting in Venezuela. The country he was in required man packing all the instruments and luggage, so Dick came back to get his appendix out to lighten the load as much as he could. Aside from an occasional attack by wild Indians and being sent adrift on a raft without oars on one of the swift South American rivers in the heart of the jungle, Dick didn't have many adventures fit to mention.

The other day an esteemed and honored member of the Class made a personal visit to the Home Office and proceeded to air his views upon the coming five-year reunion and to vent his spleen upon all of us from the office boy down, accusing us of slackness and misappropriation of Class time in that we had not already started to consider the plan. After getting him ensconced on the ample and comfortable cushions of our "Grand Rapids finest," we learned that his trepidation was directly chargeable to the recent spurt made by the Class of 1916, which, as we understand on good authority (namely, their own word), conducted a most successful five-year reunion on Cape Cod last June. Now they are talking about "200 in 1925," which is the date they have scheduled for their ten-year reunion. It took us but a little while to convince our visitor that he was unduly alarmed and that the recent revivification of the 1916 organization should be laid to the well-known by-product of the poppy plant. In order to get some real dope we told the story of this

visit to a prominent member of the Class who wrote out and sent in his ideas on the subject and we take pleasure in printing them below.

"In regard to the proposed reunion, I feel that the first of the year will be time enough to talk. The 1916 idea of starting things, to my mind, is to blow off a lot of hot air and get every one excited, and with all of their hot air and yelling about their ten-year reunion now, the only result, as far as I can see, will be to have a considerable portion of their Class worked up to hold the thing next year or the year after, and when it actually comes time for the ten-year outing they will have sort of settled down to the belief that it is ancient history.

In regard to whether we can get a crowd for our five-year reunion, I am not worrying myself, but think we will have the largest turnout of any Class and I believe that if we start in the January issue of the REVIEW and develop the plans, it will be time enough. Incidentally, what do you think of holding the affair in September next year instead of June? Outside of the fact that it is customary to hold these affairs in June and also that there is sometimes a sentiment connected with graduation which makes one want to stick to that time of the year, I cannot see any real advantage in it.

In the first place, June weather is apt to be abominable, while the time of year I propose is glorious. Secondly, in June every one who is around Boston at the Institute, and who bears the brunt of the arrangements of any of these affairs, is just finishing up his year, which, to be sure, is sometimes far from arduous, but at any rate he finds himself in June at the last ebb of vitality and interest, with also the prospect of facing the last two weeks of June after a reunion. Also, when a man finds it a considerable effort to get to Boston, it would seem to be a hardship to have such a man take his vacation in June and then return and face an unbroken summer, for, of course, these reunions are not times of rest when one can recuperate.

On the other hand, consider the situation of holding the reunion in September, say during the week prior to the opening of school. The same conditions do not obtain because the Institute men are full of pep and enthusiasm in the prospect of a new year and also they have had a good summer of rest and those who do not make education their business have either had some vacation during the summer or else they have had a comfortable summer of anticipation and have been looking forward to a good time instead of looking back upon one.

The question of sentiment as to graduation does not enter much into any Institute Class; particularly so in ours, since Senior Week was a rather tame affair, inasmuch as a good many of the Class were not present, being away in the service, and also graduation is never made much of around the Institute and the matter of holding Class reunions during Senior Week has not been established either by precedent or custom, as at many colleges, for although these reunions have been held at about the same time as Senior Week they have almost invariably taken place at some beach, oftentimes a good many miles from Boston. I am inclined to think that a reunion held in September would be an all-round success and that at least one day of it could well be devoted to a celebration or something at the Institute grounds which would give the members of the Class an opportunity to see the old faces on the staff and also to get a sort of sense of pleasure at seeing registration taking place and looking over the green freshmen and the superwise upper-classmen. I think you will agree with me that the start of the school year was always the pleasantest time when we were here as students, and to come back here in September would, therefore, recall some of the most pleasant moments we had as students.

As to the place where the real party could be staged, instead of going to the beach as we would in June, we could go up into the mountains and it would be possible to get special reduced rates at some hotel up there. We could probably get a little hotel all to ourselves and the real touch of fall weather would be very welcome, together with the pleasant feeling of slipping under woolen blankets after a good rousing camp fire at night as opposed to sitting up half the night in a bathing suit on a broken heap of clam shells trying to cool off in June."

The above brought some new ideas to us and so we shipped a copy of this letter along to another prominent member of the Class who is representative of the men who are very far away from Boston and he writes, in part, as follows:

"The ideas on September for a time for our reunion coincide with mine exactly. The more I think about it the more I favor it. Several other points have occurred to me which we can stress or combat as the case may be when we start publicity, if we do so.

First, if you remember, in September, 1913, when we entered as freshmen, it rained almost constantly for nearly two weeks; line storms, I believe the Boston people called them. However, it may be that they came later than the time which you propose. I suppose that we will have to take our chances on the weather anyway. Another argument against September is that practically all other colleges have their reunions in June. At first thought, it would have no bearing on us, but taking the case where a man happens to have a Wellesley alumna for a wife, I can see quite a battle as to whose reunion they will attend in case separated dates are chosen. This may be a little far-fetched and might not affect very many. I admit that it is purely a personal feeling that has prompted this thought. A big point in favor of the September period is that in most organizations it is very much easier to get vacations in September than at any other time of year. Nearly every one wants to get away during the heat of the summer, and very few ever wait until September for their time off. The point that greatly appeals to me in the idea is that of seeing the Institute during the registration period, a time that all of us remember as a most happy one. The fact that the faculty will be complete and on duty at that time also appeals to me.

I suppose you have your own ideas as to how to sound out the Class on this proposed change. I think it is worth while to take a *post card ballot*, don't you?"

For the present no ballot will be taken but we will welcome a serious-minded expression of opinion from any member of the Class.

As a result of the literature sent out by the Home Office and Alumni Association, thirty-four new names have been added to the list of paid members for this year, and of these, ten are graduates who have paid dues for the first time and eight are non-graduates who have paid for the first time.

The compiled statistics printed below showing the relative standing between '16, '17 and '18 should prove interesting to all members of the Class, as it is possible to see that the race for standing is very close. Although in point of numbers we have the largest number of men who have paid their dues for this year, it is a fact that the '16 crowd has exceeded our percentage by a point and a half. Disregarding the interest in these statistics due to the increasing of membership by a payment of dues to the Alumni Association, they will prove interesting from another point of view in that it is not that the percentage of members of the 1916 Class who graduated is larger than in our case, but we in turn exceed the Class of 1918. It is also very interesting to note that we win on the percentage of live addresses and, after all, that is indicative of the fact that '17 has less dead wood than the other Classes.

STATISTICS, CLASS OF 1917

	1916	1917	1918
Number enrolled on Class list.....	601	674	671
Number of graduates.....	334	362	312
Number of non-graduates who are members of the Alumni Association.....	34	17	50
Percentage of membership who are graduates.....	55	53.7	45.1
Percentage of non-graduates who are members.....	5.5	2.5	7.45
Percentage of total membership belonging to Alumni Association.....	60.5	56.3	54
Number of men who have addresses on file.....	542	622	600
Percentage of Class having live addresses.....	89	92.2	89.3
Number of graduates who have paid this year's dues.....	158	181	128
Percentage of graduates who have paid 1921 dues.....	47.3	50	41
Number of non-graduates who have paid 1921 dues.....	21	15	19
Number of men who have paid 1921 dues.....	179	196	147
Percentage of men with live addresses on file who have paid 1921 dues.....	33	31.5	24.5

ADDRESS CHANGES

John H. Babbitt, Room 38, Young Men's Christian Association, New Castle, Pa.; Charles F. Brush, Jr., 3701 Euclid Avenue, Cleveland, Ohio; William L. Dennen, 18 Wells Street, Gloucester, Mass.; Hartley B. Gardner, 30 Carver Road, Watertown, Mass.; Edwin J. Goldstein, Southbrook Courts, 3420 16th Street, N. W., Washington, D. C.; Albert S. Hall, 212 Erie Street, Cambridge, Mass.; George W. Henderson, 1913 Colonia

Street, Philadelphia, Pa.; John M. Martinez, 3 Cedar Street, New York, N. Y.; Capt. Jesse A. Rogers, Jr., 107 Bexley Hall, 50 Massachusetts Avenue, Cambridge, Mass.; Richard S. Rowlett, Hotel Girror, Bangor, Me.; Carroll C. Smith, 173 Mansfield Street, New Haven, Conn.; Haig N. Solakian, 533 West 156th Street, New York, N. Y.; Harry S. Toole, 879 Prospect Avenue, Buffalo, N. Y.; Neal E. Tourtellotte, 717½ First Avenue, Seattle, Wash.; Philip B. Watson, 130 Claremont Avenue, New York, N. Y.; Leon R. Westbrook, 3443 Beachwood Drive, Cleveland Heights, Ohio; J. Benton Wirt, 1494 68th Avenue, Oakland, Cal.

1918

JULIAN C. HOWE, *Assistant Secretary*, Cohasset, Mass.

Phil Dinkins is with the Dorr Company, Engineers, in New York City, for whom he has taken several extended trips throughout the Middle West.—Al Saunders is with the Mono Corporation of America selling recording gas analyzing instruments.—Mrs. H. G. Parker, '17, announces the arrival of a baby girl, Nancy Jordan Parker, May 29.—James L. Ricketts was married September 14, 1920 and announces the birth of a daughter, June 21, this year.—At last we have heard from Bennie Merrick, who left the Institute about 1916. He graduated from the Rensselaer Polytechnic at Troy, enlisted in the Army Aviation, doing instructing work at a Southern Training Field and is now with the Western Electric Company in the engineering department in New York.—Lawrence J. Allen wants his friends to note his change of address. His new address will be 37 Lee Street, Suite 9, Cambridge, Mass.—Sax Fletcher, is with the W. L. Fleisher Engineering Co., selling and installing dryers and humidifiers.—Otto Lorenz, is in Spain and we hope to hear a detailed account of his doings soon.—J. W. Gustavson, VI, writes the following: "Brewer and Mumford are with the Bureau of Mines; Craighead is with the McClintock Marshall Company. Mumford has recently joined our ranks in 'double harness' but I don't know whether he is all settled down yet or not."—Walter B. Engelbrecht, has been engaged in the oil game throughout Oklahoma and Mexico—at present employed as superintendent of the Cyril Refining Company, Cyril, Okla. He writes "he is still single, although inspired by the example of most of his classmates."—Herbert Jermain, is one of those married men and has settled down from last reports.—Englebrecht, says: "Oklahoma and the Southwest is a great place for a Tech man."—Jim Irwin is with the People's Gas and Coke Company of Chicago, and likes the work and the town.—Franklin is at the United States Finishing Company in Providence. He has two reasons to be glad his work is in Providence. The second one is, that his home is there.—Ekwall is with the Hood Rubber Company in Watertown and has already acquired that prosperous and contented look.—Ben Greeley is still with the American Sugar Refining Company. They evidently haven't gotten on to him yet.—Bellis is with his brother's company in New Haven and is enjoying life. He writes: "that none of the above four have stepped off into matrimony as yet, but some are staggering along the edge."

R. B. Wills, writes the following: "Due to present business depression I am leaving the Turner Construction Company where I have been for the past two years as designer and squad boss on reinforced concrete work, to take a position with an architect. I look upon this new position as only temporary and want the word passed around that I am in the market for a job similar to that which I held with Turner.—While prowling through Filene's bargain basement the other day, who should I see but Ira Young trying on a pair of non-skid golf shoes. He has been to sea for the past two years as marine engineer. He has a temporary land job for the present, but wants to get back on the 'briny' as soon as he can.

Sam Chamberlain is in New York working on some show drawings for an architect. After he finishes this work, Sam expects to go back West where he seems to like it better.—Sumner Wiley came out to see me the other day. He is married and has a bouncing daughter. I have since had a post card from him saying that he is now located with the Edison Company of New York in their construction department.—Dave Reed and Frank Burke are with Parker, Thomas & Rice, architects in Boston.—Mike Fletcher is living in Whitman and has some sort of a chemist's job. I never could find out just exactly what it was, but every time I see him he is all covered with blueing or dye, just to show every one he has

chemical intentions. Yes he's married too.— Grunsfeld is at the American Academy in Rome getting architectural feeling out of the ancient ruins. I can imagine 'Grunny' arguing over the price of his supper with some fat spaghetti merchant. I don't think he ever got married, although he has shown symptoms at times."

The engagement of Miss Muriel Butler of Brookline, daughter of Mr. William H. Butler to S. Waldemar Stanwood McGuire, of the chemistry department of Rhode Island State College has recently been announced.

Another letter from Bill Wills, which will interest every one:

"Dear Howe: I have but yesterday (October 8) best manned Pete Woodland into a state of matrimony so I thought that the news ought to get into the REVIEW. The bride was Miss Grace Turner of Melrose Highlands and everything went off just lovely as all weddings should, you know.

I met Pete Strang on the street last week but I was in such a hurry to make a train that I couldn't make out whether it was cast roller bearings that he was selling or just plain castor oil, probably neither. He was looking well and happy.

Sumner Wiley's address is 312 Lake Avenue, Lyndehurst, N. J.

I am enclosing one of Ken Reid's letters as I think it would be interesting reading for every one. All I ask is that you return it when you are through as I am saving all his letters and when I get enough of them I am going to send them to the *National Geographic* or some such magazine and make some money. Ah! how the commercial instinct does crop out in us Tech men.

I am now 'acting' as the assistant to the construction manager of the New England Foundation Company. This is only temporary but construction is picking up and I will soon have something permanent."

The following is Ken Reid's interesting letter to Bill:

"Dear Bill: I have been meaning to write you ever since I arrived in Calcutta but have had so many letters to write that I have been delayed. Please consider this a letter to both Pete and yourself. The next time I will address it to him.

I certainly had a very wonderful trip on my way out here and do not regret one bit having taken it. I have seen more of the world than I ever expected to, and have yet to look forward to returning through Europe four years from now.

I was tickled to death with California, what little I saw of it, and at present I have every intention of settling there some day. If you ever get a chance, take a flying trip out there; I am sure you will like it. But to start on my travelogue.

We sailed from Frisco on November 4. For the first two days it was quite rough and I succumbed to sea-sickness but after that for the rest of the voyage the ocean was as flat as glass and every day was beautiful. On the eighth day we touched at Honolulu for six hours and were rushed around the Island of Oahu at a great rate by Ex-Governor Frear. Lunch at the Country Club and all that sort of thing. They surely have a wonderful little set of islands, those Hawaiians. The Garden of Eden must have been something like them. The soft green mountains, mostly under cultivation, with tropical trees and plants and flowers and bright plumaged birds, (no tale of the tropics is complete without the bright plumaged birds) made the island appear as a veritable paradise to my eyes, accustomed as they were to the harsher northern landscape. (Good.)

I was disappointed not to be able to get a swim at Waikiki Beach and will have to return there some time for that experience. In the aquarium nearby I enjoyed a very fine collection of fish of the most diverse and marvelous shapes and colors, even as in the 'Arabian Nights.' There was one that had a distinct nose and which looked exactly like Ex-President Wilson. To recover from the shock of such an affecting sight, we drove up to the top of one of the hills by a very tortuous road until we could look down as from an airplane into the valleys far below, divided into checkerboard patterns by the small garden patches of different shades of green. It was one of the most beautiful views I have ever seen in my life. Mr. Frear is about to build a new home in this place which he calls 'Naheli Hau.' But we could not stay for ever at Honolulu and left at two o'clock in the afternoon for Manila, the second lap of the journey. This took us nineteen days including one lost crossing the date line. As we sailed along we passed flocks of flying fish which would spring out of the water and fly along about two feet above the surface for a distance of forty feet or more. Then once in a while we sighted porpoise but these were the only two forms of life that appeared on the whole ocean. Needless to say, that we were glad to set foot on dry land again and spent four pleasant days seeing the sights of Manila.

The old Spanish walled city known as the Intramuros was most interesting with its many fine gates. Next to that the native life in the city and surrounding villages furnished a diverting study. You can picture me riding in a Calesa (this being the name given to the two-wheeled horse-drawn vehicles which take the place of taxis in Manila), studying the natives through a figurative monocle. No doubt they were as much amused at the sight of the Americans as we were with them and their queer clothes. On the steps of the Manila Cathedral I had my picture taken with one of the young hopes of the Philippines and am enclosing you a copy of it as it is considered highly amusing. One item of my stay in Manila which might intrigue your fancy was the discovery of Dr. Joe Bush's original place of business, which occupies a prominent position on the Plaza Santa Anna. Here Joe follows the humble calling of a manufacturer and purveyor of dyes, which may possibly have had some effect in directing his later efforts into the field of mortuary endeavor. But I digress.

On leaving Manila we made a quick two days run to Saigon in French Indo-China. This town is situated twenty miles or so up a winding river, on either side of which stretch out the rice fields, perfectly flat and of a wonderful refreshing greenness. In the distance the blue mountains furnished another color note. Native boats, going down the river, passed us; some with picturesque foreign-looking sails and others propelled by oars, in many cases with women doing the work while the men sat and watched them (a quaint oriental custom). Along the banks swarmed native workers with their baskets going to work in the rice fields, for it was early morning.

And then Saigon the city; with its chattering rickshaw coolies clustering around the foot of the gangplank, its broad avenues lined with tall tamarinds, its marble monuments scattered here and there in true French fashion; its elaborate Zoological and Botanical Gardens, its filthy evil-smelling native markets filled with jabbering Chinese, its many wine shops with a supply of liquor which would make millionaires in America, its bobbed-haired French girls with their short skirts, its tiled roofs with their beautiful textures, and its leisurely French population. It was here that I first rode in a rickshaw. They are not uncomfortable to ride in but to attempt to make the coolies understand you is quite impossible. As a result of this, people from the boat, upon first going ashore found themselves transported to the Botanical Gardens, no matter where they asked the boys to take them. You see the coolies are all Chinese and the only foreign words they know are French.

To see the country better we hired a machine and rode all through the neighbouring districts. We were much impressed by the fine roads and the attractiveness of the native huts, which were quite clean and in most cases boasted of flower gardens. Here and there we passed a Chinese temple or hospital, prettily designed and decorated with bright colored faience patterns. There was a great deal of color in the country, but strangely enough very little in the native dress which was simple black and white. On the last of the three days we spent at Saigon there was the most wonderful sunset I ever saw. The entire sky was ablaze with vivid color, not as in our country, confined to one small sector. Picture to yourself the most magnificent sunset you ever saw and multiply it by about a hundred and still you would fall short of the beauty of this one. It was a wonderful send-off for our run to Singapore. I should like to describe it to you, but who can describe a sunset?

This account as far as I have gone, takes me over about half of my journey and as this letter is becoming quite lengthy I will knock off and leave the rest for the next time. I leave Saturday night on a two weeks trip to Madras and Colombo on business; my business being, as you may guess from this letter head, the disposition of Armco Iron and Calcu Calverts. I expect to see quite a bit of India in this line and will have many things to tell about so will write quite often. Give my regards to Russ Rice, Tom Hannah and the other boys and my love to Margaurite, As ever, Ken."

1919

E. R. SMOLEY, *Secretary*, 55 Hanson Place, Brooklyn, N. Y.

By this time every member of the Class has, or should have if we know his address, received the Class letter with the enclosed cards, which was sent out. It is due to this effort on the part of the officers that the Class of 1919 is about to become organized. The

number of replies received to date has been fair, but not up to expectations. All told about 525 letters were mailed. So far about 100 cards have been returned. Of these approximately seventy-five per cent were accompanied by checks for Class dues. We feel that unless it means a sacrifice on the part of the individual or his family, three dollars is not too much to ask.

In this issue of the REVIEW we are publishing the first list of names and addresses of our classmates. More will follow in each succeeding issue until we have a complete set. The advantages accruing from an up-to-date card index are self-evident, but there are intangible advantages in the system which we are trying to install which are of far greater value. For instance, one man wrote on his card "am out of a job at present" another wrote "am looking for a man who has chemical engineering experience." We put the two in touch with one another and in consequence number one man is no longer "out of a job".

Incidentally L. A. Richardson, 22 Lansdowne Avenue, Toronto, Canada writes as follows: "Class of 1919 — To those interested in mining I am in a position to tell some very interesting facts concerning one of the greatest undeveloped gold fields of today. The 'Hollinger, McIntyre and Dome Mines' are in that belt and it has been predicted by one who was formerly manager of the 'Rand' S. A. that this belt is larger. I have no stock to sell and no pecuniary motives. Merely the fact that this gold belt offers wonderful prospects and advantages for mining engineers in the near future. I shall be glad to give any information I can."

Wayland S. Bailey, II, 1569 Massachusetts Avenue, Cambridge, Mass.; student at Tech. Not married.

Ray H. Bartlett, XIII, 192 Wentworth Avenue, Lowell, Mass. Business address, City Engineer's Office. Resident Inspector, bridge construction. Married — one child. "Was with New York Shipbuilding Corporation, Camden, N. J., production work, February, 1919–April, 1921. Charge of rate setting and time study in hull department, also special work in production investigating and establishing standard practice. Taught time-keeping and cost work to 250 men besides doing cost analysis work."

Miner Milliken Beckett, X-A, 510 Dayton Street, Hamilton, Ohio. Business address, Beckett Paper Company, Hamilton. Chemical engineer. Not married. "Graduated June, 1920 as Class of '19. Took Master's degree June, 1921, School of Chemical Engineering Practice. Position, chief chemist and chemical engineer July, 1921."

Arthur H. Blake, II, 28 Wollaston Avenue, Wollaston, Mass. Appraisal engineer. Not married. "Left Institute time of S. N. T. C. Worked for Blanchard Machine Company of Cambridge six months. Then re-entered M. I. T. Just completed course in 1921. Working now with Forstall & Robinson, consulting engineers of New York City."

Roderick L. Bent, XV, 129 Elm Street, Gardner, Mass. Cost accountant. Not married. "Since graduating have been working in chair factory."

R. M. Blood, XV, 20 Orient Avenue, Newton Center, Mass. Business address, 79 Milk Street, Boston, Mass. Draughtsman, Calwell & McMullin, conveying machinery. Not married.

Through the kindness of Mrs. M. B. Blouke, mother of Pierre Blouke, we have the following information. Pierre Blouke, IV, home address, care Mrs. Edward H. Carus, 5300 Blackstone Avenue, Chicago, Ill. Not married. "Am sure my son Pierre wishes to be identified with his Class. Am also sure his modesty has prevented him from sending items of his success of the past year, so I will. April, 1920, he was awarded the \$1000 traveling scholarship by the Chicago Architectural Association. He sailed October 1, spent a month in France and was admitted to the American Academy at Rome which is described as a graduate school for graduates. As a member he has enjoyed unusual privileges. Before leaving home he was elected a member of the Illinois Chapter of the American Institute of Architects. He spent July to September in travel through Central and Northern Europe. He is now at the academy in Rome, where he will spend the winter. Spring will be spent in Spain, Egypt, Greece. Home, June, 1922."

G. R. Bond, Jr., X, 26 Mulberry Street, Springfield, Mass. Business address, 16 Maple Avenue, Pennsgrove, N. J. Research Chemist, du Pont Company. Not married. "After graduation was in chemical warfare service at Cleveland until December, 1918. In March, 1919, accepted a position as analytical chemist at the dye works of the du Pont Company. In September, 1920, became research chemist. In November, 1920, was transferred to the Eastern Laboratory of the du Pont Company at Gibbstown, N. J., where dynamite is made, and am still located there."

Royden L. Burbank, X, 39¹/₂ Tennyson Street, Somerville, Mass. Business address, 534 Lafayette Avenue, Palmerton, Pa. Chemical investigator, New Jersey Zinc Company, chemist department. Experimental work, French Process Plant, Bethlehem, Pa. Installation of analytical control in production of lithophone."

R. A. Cartwright, II, 147 Magazine Street, Cambridge, Mass. Business address, Hartford Fire Insurance Company, Hartford, Conn. Fire insurance engineer. Not married.

Richard F. Cashin, Jr., V, 390 Harvard Street, Cambridge, Mass. Business address, Essex Aniline Works, South Middletown, Mass. Chemist. Not married. "Signed up with the Essex Aniline Works at South Middletown, October, 1918, just after we departed from the Stute. Am still with them. As for signing up for life and joining '19's many benedicts, I haven't given it a thought."

Miles Francis Conners, I, 1483 Newton Street N. W., Washington, D. C. Business address, 319 Hurley, Wright Building, Washington, D. C. Principal assistant engineer, United States Railroad Administrative Department, Way and Structures. "After leaving Tech fall 1918 was employed at Washington, D. C., with Tank Corps on design. With signing of armistice resigned and accepted position as draftsman, valuation department. Started with Railroad Administration 1919 as office engineer, engineering and maintenance section. Now principal assistant engineer Railroad Administration Department Way and Structures. Actively campaigning with High School Alumni Association for new \$1,500,000 school before Congress. Planning to become member M. I. T. Alumni Association, Washington branch in near future."

K. B. Cunningham, II, 137 Corwin Road, Rochester, N. Y. Business address, M. I. T. Student at Tech. Not married. "Haven't graduated as yet, but have hopes for the coming June. Lost an additional year due to illness caused by injuries received during the war. Spent the summer playing with the finny tribe in Maine and am returning to the Stute with renewed energies for the year's work. Vice-president of Mechanical Engineering Society for this coming year."

Kenneth S. M. Davidson, II, 65 Hodge Avenue, Buffalo, N. Y. Business address, 128 Lakeview Avenue, Buffalo, N. Y. Technical Expert. Not married.

T. S. Derr, II, 83 Center Street, Brookline, Mass. Business address, M. I. T. Instructor. Not married.

Everett F. Doten, VI, 115 Glenwood Road, Somerville, Mass. Business address, Motor Specialties Company, Muskegon, Mich. Engineering Department. Married. "Graduated, September, 1918. Entered service at Camp Humphreys, Virginia, in Engineer Officers' Training School to January, 1919. Second lieutenant. January, 1919 to January, 1920 employed at Boston Rubber Shoe Company in Malden, Mass. January, 1920 to date employed by Muskegon Motor Specialties Company in engineering department. Married to Muskegon girl on June 15, 1921."

Arthur R. Ford, II, 83 Lip Avenue, Jersey City, N. J. Business address, Western Electric Company, New York, N. Y. Tester on automatic telephone installation. Not married. "I obtained employment with the General Electric Company at West Lynn, Mass., in November, 1918 and remained there until May. I became connected with Snead & Company, at Jersey City in May, 1920, remaining until August, 1921, being obliged to leave there because of business conditions. At present telephone testing with Western Electric in New York City. Hoping to get back to mechanical engineering as soon as business conditions permit."

George Philip Gail, II, 116 Ridgewood Road, Roland Park, Md. Not married.

Louis J. Goldstein, XV-3, 18 Adelaide Street, Hartford, Conn. Business address, Hartford Rubber Works, Hartford, Conn. In charge of statistical department also of scrap and salvage. Not married. "In March, 1919 after the war I came to the Hartford Rubber Works Company a branch of the United States Rubber Company. I became charter member of the Flying Squadron. After spending six months going from one department to another so as to learn all the details of the manufacturing end, I was given the job of trying to reduce waste in the factory. Scrap amounted to over a quarter of a million annually. Gradually I organized a whole department to handle scrap and later also salvage. Last October I was made a sort of assistant to the superintendent, although without the title. Last March I was also placed in charge of the statistical department. That is all, except that I'm still free, single and happy."

M. E. Goodridge, XV-3, 433 Lebanon Street, Melrose, Mass. Business address,

Young Men's Christian Association, Boston, Mass. Associate Director of Engineering, Practice Department, Northeastern College. Not married. "After one month in the army started in for the United States Rubber Company at Boston Rubber Shoe Company in Malden, Mass. Spent one year, four months on time study and rate setting, then was transferred to L. Candee & Co., New Haven. Spent one year as development engineer. Was fired after putting the United States Rubber on the rocks and started farming for W. G. Rockefeller in Greenwood, Conn. Started with Northeastern College, August, 1921 in Engineering Practice Department and also instructing in mathematics. Have not been found out yet, so am still there."

Russell Hamilton, X, 343 Main Street, Wareham, Mass. Tremont Nail Company, West Wareham, Mass. Chemist. Not married. "Being compelled to leave Tech at the end of my second year I took the position of chemist with the Tremont Nail Company and have been here ever since. I like the work first rate. Would like to see any of the boys who come down the Cape." We'll look you up if we get down some day, Russ!

James R. Hawkes, I, 97 Danforth Street, Portland, Me. Business address, care Burnham & Morrill Company, Portland, Me. Married, one child. "After leaving Tech, became assistant trust officer, Fidelity Trust Company, Portland, for one year. Commissioned Captain Infantry, United States Army at outbreak of war and served throughout same with the above commission. After being discharged accepted position with Burnham & Morrill Company, producers of pure food products and spent a large part of my time in Canada in the interests of the above firm."

Edmund W. Hill, XV, Laurel Grove Road, Ross, Cal. Business address, United States Army, Captain Air Service. Not married.

Alfred S. Hoffman, VI, 117 Nott Terrace, Schenectady, N. Y. Business address, General Electric Company, Schenectady, N. Y. Commercial Engineer. Not married. "Entered testing courses General Electric Company, Schenectady and Pittsfield. Took three months course in business administration at Schenectady. Entered power and mining department General Electric Company, as commercial engineer and am still with them. As to the rest, am on the road to bachelorhood and living in luxury (?) on my salary. Let you know more later."

Richard S. Holmgren, I, 37 Pleasant View Avenue, Lynn, Mass. Business address, care H. K. Barrows, 6 Beacon Street, Boston, Mass. Assistant Engineer. Not married. "Graduated 1920. With H. K. Barrows, Salem, N. H., survey for reservoir to November, 1920. With L. H. Shattuck, Me., November, 1920 to June, 1921. Sewer survey and study of sewerages system of Manchester. June, 1921 through August, 1921, Holyoke Water Power Company. Power house extension. September 1 to present H. K. Barrows on construction of dam in Salem, N. H."

Leslie A. Jackson, XI, 63 Bigelow Street, Lawrence, Mass. Water Works Engineer. Not married. "First employed as assistant chemist in a paper mill. Returned to Institute as assistant in civil engineering department. Then one year with Chicago Sanitary District. Now employed by the Pitometer Company of New York City. This company specializes on waste water surveys. Now employed in Boston."

Arthur S. Johnson, XIV, 50 Woodland Street, Newburyport, Mass. Business address, 3212 West Avenue, Newport News, Va. Assistant Foreman of Transportation Department, Newport News Shipbuilding and Dry Dock Company. Not married. "There is darn little to say. I went to the above company with the other twenty-seven men of 1919 Class in September, 1918. H. C. Moberg, M. A. Smith, L. C. Sorenson and I are the only ones left. It is a great outfit to work for and the other twenty-four '19-ers are missing what they left. By the way my boss is K. D. Fernstrom of 1910 relay team fame."

Everett E. Karg, X, 117 East Main Street, Johnstown, N. Y. Business address, 12 East Fulton Street, Johnstown. Member of firm of Karg Bros., Tanners. Married. "Member of firm of Superior Glove Company, Johnstown. April, 1918 to October, 1919. Member of firm of Karg Bros., leather manufacturers, October, 1919 to present time. Married, July 10, 1920."

Arthur C. Kenison, VI, 105 Mt. Auburn Street, Watertown, Mass. Life Insurance Agent, placing business with several leading companies. Not married. "Since September 1919 I have been engaged in building up a service among Technology men in the planning and handling of life insurance for business and personal needs. Things are looking good now."

Edwin M. Kenison, VI, 105 Mt. Auburn Street, Watertown, Mass. Business address,

125 Milk Street, Boston, Mass. Force Engineering. Not married. "In service until February, 1919. Draftsman at North Adams Print Works, April, 1919 to November, 1919. Employed by New England Telephone and Telegraph in Boston, January, 1920 to date. Am interested in events at Tech and get over to some affairs during the winter."

Lt. J. F. Lavagnino, XV, 593 East California Street, Pasadena, Cal. Business address, United States Army, Manila, P. I. First Lieutenant. Married.

Frederic M. Lee, X, 27 Englewood Avenue, Brookline, Mass. Business address, Boston Army Base. Captain of Infantry. Married, one child. "Have been in the army."

Charles N. Maloy, II, 4944 Lindell Boulevard, St. Louis, Mo. Business address, Boatmen's Bank Building, St. Louis. Vice-president and treasurer, Lincoln Stations Corporation. Not married. Charlie writes a little note which we quote. "Dear Paul, Can't say that anything has happened to me except that I manage to get by more or less, mostly less. Ed Deacon is the only member of our Class that I ever see. He is also located here in St. Louis. Best regards, *Charlie*."

Albert Mayer, I, 41 East 72d Street, New York, N. Y. Business address, 110 West 40th Street, New York, N. Y. General superintendent of construction. Not married.

Oscar deL. Mayer, III, 2085 Fifth avenue, New York City. Business address, 3560 Third Avenue, New York City. Contractor. Not married. "Shhhh!! I haven't been found drunk since prohibition!" (We are skeptical.)

Howard Hale McClintock, Jr., I, 6630 Kinsman Road, Pittsburgh, Pa. Business address, 1220 Oliver Building, Pittsburgh. Engineer. Married.

E. Mirabelli, I, 20 Pleasant Street, Dorchester, Mass. Business address, M. I. T., Cambridge, Mass. Instructor in Civil Engineering. Not married. "With McClintock-Marshall Company, Pittsburgh from January, 1919 to October, 1920. Instructor at Tech since October, 1920."

Joseph S. Newell, I, 593 State Street, Springfield, Mass. Not married. "Drafted November 11, 1918. (Armistice Day.) Left for Buenos Aires, Argentina, in February, 1919. Worked eight months in the construction department of Armour's La Plata Packing Plant. Returned to God's country in April, 1920 and have been at the State since then as an assistant in Course I. Decided not to return for this coming school year, so am trying to find something else to do."

Ray Powers, VII, 20 Bacon Street, Orange, Mass. Business address, Oregon Agricultural College, Corvallis, Oregon, Bureau of Chemistry. United States Department of Agriculture. Not married. "Received appointment under Civil Service immediately upon graduating in the bureau of chemistry. The above department conducted research on dehydrated foods for first year in the biology laboratories at Tech in association with Professor Prescott. Detailed to field service having spent remainder of time, about two years in California, Oregon, Washington and Idaho, conducting research at State experiment stations and investigating commercial practices in the dehydration of food products."

J. P. Putnam, VI, 22 George Street, Providence, R. I. Business address, Narragansett Electric Lighting Company, Providence. Draftsman. Not married.

Frank B. Reynolds, X, 46 Boston Street, Malden, Mass. Business address, Boston Rubber Shoe Company, Malden, Mass. General engineering, planning department. Not married. "I graduated in June, 1921, but because of war service, my degree read as of the Class of 1919. I immediately entered the employ of the Boston Rubber Shoe Company where a six months factory training course was pursued with some mental and a great deal of physical labor. At its conclusion I went into the planning department whose head is S. K. Cooper, '18. I have since been setting rates, investigating and developing."

P. L. Rhodes, XIII, 620 Main Street, New Rochelle, N. Y. Business address, 50 Church Street, New York City. New York representative, Union Shipbuilding Company, of Baltimore. Married. "Went to Boston Navy Yard with Course XIII classmates to take special course for naval constructors. Course was stopped by armistice. Went to work as ship fitter for American Shipbuilding Company at Cleveland and Lorain, Ohio. September, 1919 entered contract with Union Shipbuilding Company of Baltimore. Worked in all departments of yard. July 4, 1920 was made New York representative of that concern and am still here and so is shipbuilding still! Biggest event since leaving Tech occurred June 15, 1920."

Edward A. Richardson, II, 950 West 32d Street, Kansas City, Mo. Business address, 304 Long Building, Kansas City, Mo. Engineer (Fire Prevention). Not married. "Spent

fifty days in the army, and a few more getting a job. Spent about seven months of 1919 with the Hartford Fire Insurance Company at Hartford, learning the principles of fire prevention. Much time since in Chicago and Kansas City and neighboring regions applying them. Otherwise no news of importance."

L. A. Richardson, XIV-2, 22 Lansdowne Avenue, Toronto, Ont. Business address, 56 Church Street, Toronto, Ont. Order Department, Imperial Oil, Ltd. Married. "Left Tech to enlist in Royal Flying Corps, Canada. Served in France until wounded. Upon my return home bought a garage and during 1919-20 ran same, dabbling in real estate and "black foxes" as a side line with some success. July 1920 "got a hunch" that a business depression was approaching, sold business and accepted a position in the order department of the Imperial Oil, Ltd. Am still with that Company to date. September 3, 1921, embarked upon the sea of matrimony, and finally am waiting for the present business depression to lift, in order to again enter business for myself. Have much information to those interested in mining. Would be glad to give information."

Edward L. Sache, VI, 12 Glengany Street, Winchester, Mass. Business address, Room 340, 18 Tremont Street, Boston, Mass. Service and installation manager, McClellan Refrigerating Company, New England Agency. Not married.

Edgar Seifert, V, 34 Kendall Street, Lawrence, Mass. Business address, American Aniline Products, Lock Haven, Pa. Operating superintendent. Not married.

Edgar R. Smith, V, 1105 Franklin Street, Wilmington, Del. Business address, M. I. T. Assistant in Physical Chemistry. Married. One boy. "Chemical Warfare Service, June to December, 1918. Took B. S. from M. I. T. 1920 (as of Class of 1919). Took M. S. at M. I. T. in 1921. At present am working for Ph.D. in Chemistry."

E. R. Smoley, X, 55 Hanson Place, Brooklyn, N. Y. Business address, 1160 Front Street, New York City. Technical Department, New Jersey Zinc Company. Not married. "Testing Department of New Jersey Zinc Company. Zinc Oxide Manufacturing Department, at Palmerton, Pa., till June, 1919. Then Technical Department, New York City office."

Paul D. Sheeline, IX-b, 55 Magazine Street, Cambridge, Mass. Business address, Dillon, Read & Company, 19 Congress Street, Boston, Mass. Married. One boy. Investment banking.

Bertram H. Southwick, II, 126 Bowler Street, Lynn, Mass. Business address, General Electric Company, Building 648, River Works, Lynn, Mass. Turbine calculator. Not married. "After 1919 had been invited to leave, I returned to the Institute for the Intensive Naval Architectural Course which I completed about December 7, 1918. In March, 1919, I entered the Turbine Research Department of the General Electric Company at Lynn, and have worked for this department continuously up to the present time."

P. F. Suasey, IV-2, 7 Union Street, Waterbury, Vt. Business address, Box 1486, Boston, Mass. Structural engineer. Not married. "Newport News Shipbuilding, September 23 to October 25. E. T. O. S. Camp Humphreys, Va., October 25 to November 27, 1919. Structural engineer, General Electric Company, Schenectady, N. Y., January, 1919 to March, 1921. Architect's office, Boston, March, 1921 to September, 1921. Present position, September, 1921, supervisor and assistant to superintendent Farm and Trades School."

Donald Stockbarger, XIV, 21 Ellery Street, Cambridge, Mass. Business address, Room 4-113, M. I. T. Assistant in Physics. Also outside research. Not married. "Nothing to tell yet."

The Class of 1919 expresses best wishes to the following classmates who have joined the ranks of the benedicts and to these fortunates who are about to join.

Mr. and Mrs. George P. Grant, Jr., of 62 Beacon Street and of Lunenburg, Mass., announce the engagement of their daughter, Margaret Hubbard to Mr. James Rhodes Moore of 29 Williston Road, Brookline, son of Mrs. J. Herbert Moore and the late Dr. Moore.

Miss Grant is a graduate of the Emma Willard School of Troy, N. Y., Class of 1919, and of the Garland School, 1921. Mr. Moore was of Class of '19, Massachusetts Institute of Technology, and is a member of the D. K. E. fraternity.

Carl W. Phelps of Sylvan Street was ordained as a missionary recently in the Wesley Church. Mr. Phelps, a graduate of Massachusetts Institute of Technology, has been appointed instructor in Jaffna College, Ceylon. He will instruct the natives in engineering, now considered a necessary part of mission work. He will sail for Bombay,

India, about August 16. On arrival at Bombay he will be married to Miss Mary E. Moulton, who has been transferred from Rhodesia to India. She has been a mission worker for several years.

An interesting engagement of the week was that announced by Dr. and Mrs. Felix Rackemann of the latter's sister, Suzanne Mandell, to William Gagnebin of Brookline, both families of the summer colony at Cohasset. Miss Mandell, since the death of her parents, the William D. Mandells of the Fenway (her mother born Braman), has lived with her brother, Winthrop, on Alton Place in Brookline. She is a niece of George S. Mandell of Boston and Four Corners, Hamilton. Miss Mandell belongs to the Vincent Club and is a member of the 1915 Sewing Circle. Mr. Gagnebin is of the M. I. T. Class of '19. He belongs to the Technology and Engineers Clubs in New York.

Announcement is made by Mr. and Mrs. Charles W. Aiken of Brooklyn, N. Y., of the engagement of their daughter, Miss Dorothy Squires Aiken, to Rogers Bruce Johnson, of Cambridge, son of Mrs. Edith R. Johnson, of Cincinnati, N. Y. Miss Aiken is a member of the Class of 1922 at Wellesley College. Mr. Johnson, who is a member of the administrative staff of Harvard University, was graduated from Harvard in 1917, and the Massachusetts Institute of Technology in 1919. He is a member of the Phi Kappa Epsilon Club at Harvard. The engagement was announced at a party of friends held over the holiday week-end at Miss Aiken's summer home, Webster Lake, N. H.

Miss Esther J. Madsen, daughter of Mr. and Mrs. Andrew Madsen of 6 Allen Street, was married at her parents' home to Frederick J. W. Given of New York City, son of Mr. and Mrs. Fred Given of the West Side, this city. Rev. J. E. Johnson of the Scandinavian Evangelical Free Church officiated. The bridesmaid was Mabel C. Madsen, a sister of the bride; the best man, Lawrence G. Young of New York City.

The bride is a graduate of the business administration department of Boston University. The groom was graduated from Woburn High School in 1914 and from Massachusetts Institute of Technology in 1919, and is electrical engineer for a New York concern. The couple will live in East Orange, N. J.

Miss Ruby Hopkins, daughter of Mr. and Mrs. Daniel A. Hopkins of Springfield and Wellfleet, and Mr. Oliver Francis Freeman, son of Mr. and Mrs. Alvin M. Freeman of Winchester and Wellfleet, were married in the Methodist Episcopal Church in Wellfleet by the Rev. Dr. Patterson, pastor of the church. Mr. Dana M. Freeman of Winchester, brother of the groom, was the best man, and Mrs. Leland F. Bardwell of Springfield, sister of the bride, was matron of honor. Miss Alice F. Freeman, sister of the groom, and Miss Beatrice McQuillan of New York City were the bridesmaids. A reception was held after the ceremony at the summer home of the bride's parents in Wellfleet. After a wedding tour, Mr. and Mrs. Freeman will make their home at 12 Mystic Avenue, Winchester.

Announcement has been made of the marriage of Miss Iva Nancy Knutson, daughter of Mrs. P. H. Knutson of Muskegon, Mich., and Mr. Everett Fitz Doten, Technology '19, son of Mr. and Mrs. Herbert W. Doten of Somerville, on June 15 in Muskegon. The bride was attended by her sister, Miss Agnes Knutson, and the best man was Mr. Philip Watson of Detroit, formerly of Somerville. Mr. and Mrs. Doten will live in Muskegon.

Mr. and Mrs. L. M. Nathanson, of 118 Elm Hill Avenue, Roxbury, announce the engagement of their daughter, Beatrice, to Henry B. Blumberg, M. I. T. '19, son of Mr. and Mrs. Max Blumberg of 64 Brunswick Street, Roxbury.

Mrs. Eustace A. Bradley of Pittsfield and Cambridge announced the engagement of her daughter, Mary Temple Bradley, to John Coleman Purves, son of Mrs. Austin Montgomery Purves of Chestnut Hill, Pa. The announcement was made at an informal afternoon tea. Miss Bradley is a graduate of Miss Hall's School in Pittsfield and the Emma Willard School in Troy, N. Y. She was presented during the season of 1916-17 and has many friends in Boston. Mr. Purves is a graduate of Massachusetts Institute of Technology, '19, and a member of the Number Six Club.

1920

KENNETH F. AKERS, *Secretary*, 54 Dwight Street, Brookline, Mass.

Your secretary's persistent efforts to obtain news from the 1920 gang have finally met with some success, and the following has come into his hands as regards the activities of our men:

"Gip" Brown has returned from his work in Belfast, Ireland, where he has been studying the linen industry. He has also been in Dundee, Scotland, and in France. If I remember rightly, "Gip" wrote of "wild" times in Paris. Am I right, "Gip"?

I. H. Wilson is with the General Electric Company in Lynn and "hitting on high." As some of you may know, he has been a married man for some time.—Harry Kahn keeps up the good work of writing. He is now in Trenton, N. J., doing research work in clay bodies and glazes for some porcelain articles which he expects to start manufacturing shortly. Good luck to you Harry!

At last our worthy Course VI leader has consented to write us of his whereabouts. "Harm" Deal says he is holding down the job of assistant to the general manager of the Missouri Public Utilities Co. of Cape Girardeau, Mo. He has seen H. O. Davidson, "Snug" Etter and Ted Saunders during the past year in St. Louis, also Homer Howes.—H. O. Davidson has left St. Louis now and is back at Tech doing research work, so I have been told.—C. D. Carleton writes from New York City that he has gone into the underwriting end of liability insurance. He says Jack Logan was in New York over Labor Day and expects to be transferred to New York from Altoona in December.—Alfred Ellsworth of Braintree, Mass., has joined our ranks although he graduated with 1921. He is to work with the United States Bureau of Fisheries this fall, with his office and lab at Tech.—"Chuck" Reed has quit the prof's job, and is now head office boy for the Forbes Varnish Co. of Cleveland, Ohio, in the form of assistant sales manager.

"Ned" Murdough is still with Metcalf & Eddy and has moved his place of chow rooms to the Georgian Cafeteria, where you may always find him, along with Perc and Harold Bugbee.—"Perc" Bugbee has now launched his good ship "Matrimony" and will soon take up his headquarters at 1298 Commonwealth Avenue, Boston, Suite 19. He is still with the N. F. P. A. at 87 Milk Street.—Harold Bugbee can still be found with the Walter B. Snow Advertising Agency in Boston.

"Ed" Farrow writes from Rochester, N. Y., where he is with the Eastman Kodak Co. He says the more we 1920 men go to the "movies," the faster his salary will go up, because he is making movie films by the mile.—"Phil" Young is also with the Eastman Kodak Co.—That's the boy "K. B." White give me all the news you can get! K. B. is now head grocery boy with Nicholson-Thackray Co. in Pawtucket, R. I. He is learning the chain grocery store game from the "store-shelves to the kitchen table." He also writes the following of other 1920 men we know:

"I have seen Jerry Franck. He is selling women's suits around here in New England. He likes it better than chemistry and says he is making a lot of money.—Warren Chaffin: He has a job straightening out a thirteen-year-old mess for Brown & Sharp. They call it their stock file. He says it looks like a great big job. I picked him up in the library, searching for dope.—S. M. Lee: He is in Washington with the Bureau of Standards, working on gas engines. The work, he says, is fascinating.—A. W. Miller: Dusty is still selling marshmallow for his father. He raked the company out of a month's vacation by enlisting in the Guard.—W. T. Honiss: Yam is an installation engineer for the Hartford Fairmont Co. He looked prosperous when I saw him last.—Johnny Nash: He seems to be up in Saylesville in the time-study game.—Unk Warriner. He is back from England and combining work and vacation at the Fore River Shipyard. He is also beginning at the bottom of things, to get a better start up so he says."

C. E. Alexander writes from Cleveland, Ohio, where he is test engineer for the Cleveland Electric Illuminating Co.—R. R. Ridgeway's invitation to his marriage on September 28, 1921 to Margaret Longfellow has reached me. I'll be there if I can make it, Ridge, with old shoes and rice!

"Scoop" Moss crop sends us a card from Wyoming, which is as far as he has got in his trip west in a Ford with "Bob" Barker, '21. He says they are "working their way." Can you beat that? Does it sound real! No hard feelings, Scoop!

John W. Crowley, Jr., is now in Hampton, Va., working on aeronautics in the Langley Memorial Research Laboratory.—Charles Klingler writes from Milwaukee, Wis., where

he is with Ellsworth & Thayer Manufacturing Co., who are a glove, mitten and fur coat concern. He says John Keats is also in the same town. He says Phil Haebler spent the summer in the Yellowstone learning how the game of poker is played west of the Mississippi. How come, Phil? Is it rather tough on an easterner?

The following came from Austin Higgins:

"I enlisted in the regular army on the day of the declaration of war and was ordered to Panama, but on the eve of sailing came down with pneumonia. While convalescing I was offered a commission in the marines, which I was discharged from the Army to accept. Soon after I reported for duty at Parris Island, my father, Edward E. Higgins, '86, died very suddenly and I was obliged to resign in order to look after his affairs. After about ten months of work in the library department of the Moore-Cottrell Subscription Agencies I re-entered the service and was stationed at Pensacola as instructor in Squadron 5, H. S. Seaplanes. Got out of the service February, 1919, and was with the Horatio Kelsey Axe Handle Factory for a few months. August 21, 1919, I was married to Mary V. L. Rynders of North Cohocton, N. Y., and came back to North Cohocton as manager of the library department of the Moore-Cottrell Subscription Agencies of which I am now president. We have one son, Roger Rynders Higgins, eight months old and he is some boy. My permanent address is care Moore-Cottrell Subscription Agencies, North Cohocton, N. Y."

"Bob" Robillard writes the following letter from 1329 Riverside Drive, Dayton, Ohio:

"Dear Ken: As an example of chin music, dear secretary, your latest contribution to American literature has been classified with the best, and to show you that I mean it, I am going to give you some long overdue news. It is just a year ago that I wrote you from Philadelphia, where I had complete charge of one of the American Bridge Co.'s drawing boards, in company with Berko, De Meulenaer and Shlager. We have all scattered now, Berko with the New England Roadbuilders' Association, Boston; Demi with the Boston Bridge Department; Shlager with the Standard Oil Co., Bayway, N. J., and I am at McCook Field doing structural design and research work in airplane structures, with the title of aeronautical structural engineer.

There are Tech men in every department at McCook Field, and many of the officers are Tech men, either through graduation or through attending the various army schools at Technology.

Speaking of athletics I am sending my bit, because I really believe that Tech needs more of such things, as proved by the following: At the Tech-Purdue picnic which was held a month ago, Tech beat Purdue at quoits, but lost out in baseball to the score of 12-2. Fred Hewes, '18, knocked a homer for one of Tech's runs, and I think somebody added on the other run to our score out of sympathy. I was kind of occupied feeding myself and somebody else when chow was served, so that I can't give you many facts as to time and distance records set for food consumption, but it is a good bet that Fred Hewes, '18, led them all for time and quantity.

If I have slightly overemphasized food items, it must be because I am just getting over an attack of quincy — and you know how much encouragement a healthy appetite gets from quincy.

My regards and best wishes to the old guard, and an invitation for any old-timer in my neighborhood to make himself known. I'll sure be glad to meet them all again."

Just received some more news from Harold Bugbee. He is to be married to Miss Amy Budgell on Saturday, October 1, 1921. One more benedict for 1920!

"Pete" Merryweather writes again from Denver, Colorado. He says the oil business is dull. So is every other, Pete.— George Des Marais writes from Washington, D. C., where he is working for the United States Patent Office as assistant examiner. He also intends taking up law at the George Washington Law School. Good luck to you, George.— "Bill" Hooper is working with W. D. Austin at 50 Bromfield Street, Boston. He says "Dick" Gee looks very prosperous sporting around in a Chandler. How about it, Dick? Also "Hoop" writes that the last he heard of Jack Perkins, he had just returned from Mexico and was trying for a commission in the army. Let's hear from you, Jack.

Alfred Fraser is with his father in the florist business. Any time you want to get your girl some flowers call up "Al," he hangs out in Wellesley in the bargain, meaning the town (and maybe the college), eh! Al!

"Al" Glassett is in Providence at present, working on a job for the Osgood Con-

struction Co.—Harold Goodwin is working as a steel checker for L. P. Soule & Sons, who are erecting the Shawmut Bank extension. He says the last he heard of "Bill" Preston he was looking for a job near his home in Porto Rico.—"Norrie" Abbott writes from Providence, where he has a position with Phillips Lead and Supply Co. He says Ned Van Dusen is with a paint and varnish company in Boston. He has seen Johnnie Nash quite frequently in Providence. Norrie is at present planning a trip to Jackson, N. H., and a climb of Mt. Washington. Says he needs some exercise to reduce.

Bob Rowe has returned from a vacation in Paris and is now seeking a job in New York. No small town stuff for us, eh Bobbie?—Stan Reynolds is still with the Midvale Steel Company of Boston.—"Bill" Shakespeare sends his regrets from Kalamazoo, Mich., at being unable to attend our first reunion. Better luck next time, Bill.—Homer Howes is still keeping his eye on the financial accounts of the Bemis Bag Co. He and "Snug" Etter are keeping bachelor quarters in Indianapolis.—Hugh Duffill is now building a steel and concrete bridge in Taylorville, Ill. We didn't take "Structures" for nothing, did we, Duff?

Bill McKenney was married on Thanksgiving Day. Atta boy, Mack. He is working with the Bridgeport Brass Co.—Ernest Huntress is teaching at the Stute while working for his Ph.D. These ambitious men—!!!

Dick Gee is running the New England Oil Refining Co. in Fall River. How many more weeks before you'll own it, Dick?—Phil Byrne is with the department of chemistry of the University of Notre Dame.—"Lan" Boyden is now working for the Helburne & Thompson Leather Co. in Salem, Mass. He seems to be getting a good hold on the leather game and feels he has great opportunities.—Your secretary is still with the Underwriters' Bureau of New England in factory insurance inspection work. I find the game very interesting, instructive and broadening as well. My work is all in New England, wherever I happen to be sent.

Many men have not paid their bit toward the Alumni Athletic Fund. The following men have sent in funds since the last REVIEW came out: Harold Goodwin, J. H. Wilson, H. B. Deal, K. B. White, C. E. Alexander, C. H. Reed, R. E. Robillard, George F. Des Marais, Al Glassett.

As a parting word let me remind you all that the REVIEW comes out in January, April, July and November of every year. So keep me posted at all times, *i. e.*, follow out our slogan continually—"Write to Ken Akers."

P. S.—Here are a few more notes that came to me late.

Daniel Whelan, Jr., writes that he is working with the United States Coast and Geodetic Survey doing hydrographic work along the coast of South Carolina.—"Stan" Stanwood is way up in the wilds of Millinocket, Maine, working for the Great Northern Paper Co. He says it's a great country but "100 miles from nowhere."—Paul Berko is still with the New England Roadbuilders' Association. He says Johnnie Lucas has opened up a garage in Lynn and is looking for all the 1920 trade he can lay his hands on. If your car is busted when you bring it in, Johnnie guarantees *you'll* be "busted" when you take it out.—E. W. Sloan is looking for Tech men around the vicinity of Salt Lake City where he says they are scarce as hen's teeth.

Sam Chamberlin writes in part as follows:

"But it will be admitted that I am moving to Seattle for good and for all, being in mortal fear of contracting 'mutton chops' and old foggy habits if I stayed around Beacon Hill much longer."—He's on his way to be one of Seattle's famous architects. We all wish you luck "Sam"!

Two more men have sent in their Athletic Fund money. They are Paul Berko and E. W. Sloan. Many thanks!

C. A. Clarke, '21, sent in some notes regarding '20 men, as follows:

"L. H. Allen, '20, has just come to the Engineering Department of the Western Electric Company, 463 West Street, New York City. Allen is in the Systems Engineering Branch, and is living at 193 North 16th Street, East Orange, N. J. He says he's been married recently but wouldn't give me any dope. Perhaps Ken can get it from him.—Ken Roman, '20, is with Peggy Paige Dresses, 18 West 32d Street, New York City.—F. E. ZurWelle, '20, 259 West 73d Street, New York City.—George Bliss, '20, Sigma Chi, 415 Riverside Drive, New York City. George is with the Inspection Department of the Western Electric Company on machine switching equipment."

The Class has lost another of its members through the death at Oberlin, Ohio, of

James Howard Becker, II, VI, only son of Mr. and Mrs. Burton A. Becker. Funeral services were held at his home, Clyde, Ohio, interment being made in McPherson Cemetery. The spacious home was filled, and a wealth of flowers attested the mute sympathy of friends and neighbors. The service was conducted by Rev. W. H. Willison of Bowling Green, who read the following obituary:

James Howard Becker was born in Clyde, Ohio, October 14, 1897, and died October 22, 1921, aged twenty-four years and eight days. He was a graduate of the Clyde High School in 1915, and for the past six years had been a student at the Massachusetts Institute of Technology. He was awarded his degree of Electrical Engineer last year and was a member of the College Faculty in the electrical engineering department. He also continued his studies at the Institute to obtain the added degree of Mechanical Engineer, which was awarded him this fall.

Howard, as he was known at home, was offered a position with the Sandusky Foundry and Machine Company, and he was particularly happy to secure such a good position where his many years of intensive training could be put to immediate use. He was very cheerful when he started for work Saturday morning.

Saturday afternoon, October 22, he drove his automobile to Oberlin where he was to call for and take Miss Bernice Brown of Clyde, who is a student at Oberlin College, to the football game. He stopped his car in front of Lauderdale Hall where she was living, and went up the steps onto the porch, and was seen to place his hand to his head. The door was opened by a friend of Miss Brown, who found he had apparently fainted. She ran across the road to a doctor who came immediately; other doctors were also called, but their combined efforts were unavailing to bring him back to consciousness.

Howard was an exemplary young man who had never given his parents a moment's worry as to his conduct. His plan of conduct was apparently formed early in life, for among his papers were found the following resolutions, written when he was twelve years old:

New Year's Resolutions:

No. 1 — Try to return kindness.

No. 2 — Use kindness as the best policy.

No. 3 — Keep your nose out of other people's business.

No. 4 — Try to help others who are in trouble.

Clyde, Ohio, Vine Street, January 1, 1909.

HOWARD BECKER.

That these resolutions were made in good faith is evidenced by the fact that he strictly adhered to this policy all through his life.

That Howard was a good student was shown at the graduating exercises when he obtained his degree of Electrical Engineer. Although there were several hundred graduating students, the thesis on which he worked and which he submitted was one of seven selected by the College Faculty from which to have abstracts read at the graduation exercises. It was in his second thesis, which was to show that he was proficient in mechanical engineering, that he showed his pride in his home town and one of its institutions. He selected the controller or automatic governor used on the Clydesdale motor trucks. He made many tests of this apparatus in the testing room of the Institute, and his faith in the efficiency of the apparatus was fully vindicated.

Universal sympathy of the community goes out to Mr. and Mrs. Becker and to the sister, Mrs. Clarence Fuller of Columbus, in the great trial which has come to them.—*The Clyde Enterprise*.

1921

R. A. ST. LAURENT, *Secretary*, 754 Morton Street, Mattapan, Mass.

CAROLE A. CLARKE, *Assistant Secretary*, 528 Riverside Drive, New York, N. Y.

Men of 1921, you have been graduated from Technology and, as well-equipped children of a proud parent, you have taken wing from the sheltering nest of the last four years to reap much deserved success in widely differing fields, and to shower your alma mater with all the added glory in which she must also share. Broken, temporarily at least, are the many ties of close friendship and sincere association which were enjoyed

during our short stay under the same roof. But are these most valuable of all friendships to be severed in the slightest degree merely because the members of our family have migrated to other parts? Shall we neglect the opportunities which older and wiser heads than ours have labored to produce for our benefit — our local alumni centers, our enormous Alumni Association, our tri-weekly newspaper, *The Tech*, and last, but far from least, the *TECHNOLOGY REVIEW*, our alumni magazine. Allied to these, in a measure, is the Association of Class Secretaries, which has expended its best efforts to bind the tens of thousands of individual satellites to the central nucleus, Technology.

1921, let's **STICK TOGETHER**. We have known hardships and pleasure. We are practically the first products of the New Technology, but we have been sorely tried by a period of war and unrest. We have lost a beloved President, only to gain a great leader whom we unfortunately never learned to know. We found student affairs waning and insufficient, and we established new projects and started rebuilding old ones. We have found it necessary to maintain organization and to rely on personal contact. Shall we lose at one fell stroke all the teachings of four unusually hard and trying years?

Fellows, the answers remain with you. Others can do nothing but advise and request, it is up to you to realize that their doings are solely for your good. You are asked to do little — to affiliate with the Alumni Association, which includes a subscription to the *REVIEW*, and to keep in touch with the Class secretary, remembering that for every one postal which he will ask of you four times a year, the secretary must write over 600 to the entire Class. Will you do your share as a 100 per cent loyal Technologist? Sure you will — and 1921's slogan is "**DO IT NOW!**"

Following are a few notes of our classmates which have been hurriedly collected. Every member of the Class will receive a card asking for information before the next issue of the *REVIEW*. And when you get it, don't forget to answer **AT ONCE** — remember **DO IT NOW!** Best wishes to all. — C. A. C.

The first answer to a rather urgent postcard was received from R. G. Burr, VI. Reggie, who is with the statistics department of Stone & Webster at 147 Milk Street, Boston, says that Al Calvert, VI, not satisfied with only two letters of the alphabet after his name, is going back to the Stute for more. Also, L. Randall, VI, and C. A. Williams, VI, have been working for the City of Boston and the latter will return to Technology for some P. G. courses. When asked about matrimony, Burr declared he had postponed such action until 1921's much heralded twenty-fifth reunion!

William A. Bevan is now chief engineer officer of the aviation supply and repair depot, Rockwell Field, Coronada, Calif. George Bliss, IX-B, and H. S. Colton, X, are in the inspection department of the Western Electric Co., in New York. Bliss is living at the Sigma Chi House, 415 Riverside Drive, New York City. George says his affinity for the Class of 1920 is so strong that he will desert us in the future for an earlier page in the *REVIEW*. — Met "Babe." Bliss and Naigles at the same exchange working on the new machine switching equipment; also E. B. MacDonald, '23, who returned to the Institute. — E. G. Betts, VI, is another who will leave us, for the 1918 section of the *REVIEW*. Erv is with the engineering department of the New England Telephone and Telegraph, and has been in Portland, Me., taking the eleven week course before going back to 50 Oliver Street, Boston. His home is 247 Grove Street, Auburndale 66, Mass. — J. E. Buckley, Jr., VI, is a tester with the testing department of the New York Edison Co., and is living at 269 West 73d Street, New York City, with F. E. ZurWelle, IV, '20, and E. F. Delany, I. — F. J. Callanan, VI, owns up to letting an engineering education go to the discard and, in face of Dean Burton's last advice, to working for his father at Keeseville, N. Y. However, Cal has it on us for variety — road construction, house building, auto repairing, plumbing, and saw mill work, with two chances for sea voyages thrown in. — E. P. Clark, II, is in the plant engineering department of the New York Telephone Co. Ed is living at 355 Communipaw Avenue, Jersey City, N. J. — A. S. Denbin, VI, writes he is a general tester in the New York Edison Co., with Buckley, Hartwell Flemming, VI, and L. J. Brown, VI. Denbin can be reached at 10119 118th Street, Richmond Hill, L. I., N. Y., Flemming at 470 East 161st Street, New York City, and Brown at 419 West 118th Street, New York City. Brown has consistently evaded our editorial self and we're becoming suspicious — more of which later! — T. D. Dutton, VI, is an assistant engineer with the Boston Elevated Railway Co., 439 Albany Street, Boston, Mass.

We are in receipt of a clipping announcing the marriage on July 12 of Miss Irene

Bowen Jollie, daughter of Mr. and Mrs. Arthur W. Jollie of Pawtucket, R. I., and James L. Entwistle, VI, of Central Falls, R. I. Following their honeymoon the couple will reside in Boston where Entwistle writes he will return to the Institute to specialize in Heavy Traction Electrification. Much happiness and the best o' luck, J. L.

E. G. Farrand, VI, surprised us by reporting his association with Paul H. Davis & Co. of 39 South La Salle Street, Chicago, where Ed is learning the investment security game and the organization of public utility companies. He is a member of the Technology Club of Chicago and says he has met L. R. Janes, VI, and C. L. Maltby, VI, '22 there.

We received an interesting young volume from H. P. Field, VI, which we should like to quote in full. Harry is with E. D. Ryer, VI, and B. M. Mills, VI, in the testing game at the General Electric Co., Schenectady, N. Y., and the three are living at 419 Union Street. Ed is said to be quite a bachelor, and Bruce is still tinkering with a balky motorcycle and bathtub attachment. Others reported in the General Electric include A. R. Honig, Jr., VI, E. H. Bancker, VI, '20, M. H. Pai, VI, '20, and "Phlaughcie," 1920's prominent ex-Cleofanite. Harry says he is studying cross country roads preparatory to driving back on his return from Honolulu next summer. Congratulations, old man. He is planning to keep in touch with the Stute via 2XQ, the Union College radio station.—C. T. Gardner, I, is a civil engineer with the Astoria Gas Co., Astoria, L. I., N. Y. He lives at 325 Convent Avenue, New York City.

From *The Tech* of September 28: "Twelve of the thirty-three men at the aviation camp at Post Field, Fort Sill, Oklahoma, were from Technology. Merton C. Hall, VI, and James B. Ford, XIII (both M. I. T., '21) received commissions as second lieutenants in the Aviation Reserve Corps, and were the only men at the camp to receive commissions." Three cheers for our side! Mert Hall is now in the department of development and research of the American Telephone and Telegraph, 195 Broadway, New York City, and is living at 306 Macon Street, Brooklyn, N. Y. They tell us it's hard to recognize him in the street since he's using those big stogies. Must be pretty soft, say we!

Writing from his home at 425 Pelham Manor Road, Pelham Manor, N. Y., P. H. Hatch, VI, says he will be at the General Electric, in testing at Schenectady or Pittsfield, or in railway work at Erie, but had not started work at the time of writing. He reported J. D. Bowman, VI, in Maine, and a belated letter from Johnny tells us he is in the engineering department of the Central Maine Power Co., Waterville, Me., doing substation design and survey work in the field. Johnny says D. M. Burckett, VI, is back at the Institute.

The plant engineering department of the New York Telephone Co. has captured quite a few of our 1921 models, among them being S. J. Hill, X, Sumner Hayward, X, and E. I. Howard, XIII, all located at 104 Broad Street, New York City. Eddie Howard is living with Curt Gardner at 325 Convent Avenue, New York City and Hayward at 133 Shepard Avenue, Newark, N. J.

M. R. Jenney, VI, is with the Charles F. Brush (VI, '17) Industrial Research Laboratories, 3701 Euclid Avenue, Cleveland, Ohio, as is C. B. Sawyer, who received his Ph. D. degree this year. Mel wants the address of George Shoemaker, who was going to Nela Park, Cleveland, and so do we; says he met Jimmie Janes on the latter's stopover in Cleveland on his way from Chi to Boston. Wonder what Jimmie is up to in Beantown?

S. M. Jones, VI, has been working on a power survey for Carver, Macomber & West of Boston, but says he is going back to Technology for another degree. How come, Sam? You've got an "S. M." in your name now! Jones lives at 512 Commonwealth Avenue, Boston.

H. P. Junod, III, is back at the Stute. Harry is living at 334 Harvard Street, Cambridge.—G. A. Kain, Jr., VI, is located with Miller & Padre, Chicago, as a switchboard expert. George says he is haunted by Lyon's "P double F" three-phase diagrams and is hoping for relief in meeting fellow sufferers at the Chi Tech Club where he reports seeing no 21'ers. Kain lives at 938 Ontario Street, Oak Park, Ill.

W. L. Knoepke, VI, is in the systems engineering branch of the engineering department, Western Electric Co., 463 West Street, New York City, and can be reached at 122 North Fulton Avenue, Mt. Vernon, N. Y.—E. W. Olcott, VI, is "rooming" with Bill at the Western Electric, and Ye Scribe's "boudoir" is just over their heads.—Eggs Olcott lives on Elm Street, Wyoming, N. J.—K. F. Rodgers, II, is in specifications and special orders at the same place, and is living at 2322 Ryer Avenue, New York City. Editorial "we" are in the telephone transmission engineering branch of the Western Electric's

engineering department, at present studying the new automatic phone system of the city. Between trying to play Knoepke's compositions before a bored audience at the Tech Club, building a radiotelephone set to keep in touch with the Institute, attending Columbia University evenings for a Master's degree, and corresponding with 1921 men who don't answer, we indeed lead a busy life. Address, Cac Clarke, 528 Riverside Drive, New York City.

W. C. Kohl, VI, advertising manager, Century Electric Co., 1827 Pine Street, St. Louis, Mo., will be owning the concern next time we hear from him. Bill says, "Don't ask me how I ever got the position for I hardly know myself. My factory period was cut from six months to one week, so you can never tell what will happen. All I know is that the vice-president asked me why I should have the position when I asked him for it, and as soon as I told him I took a course under Professor Robinson in English Publicity that fixed it OK for me. So now I'm hard at it, making up ads, catalogues, etc." Radio bugs will note Kohl is now 9CB instead of 1AO.—H. M. Lane, VI, is with John Hayes Hammond, we understand—experimenting with radio at Hahvud; Hank lives at 27 Linnaean Street, Cambridge.—H. R. Kurth, VI, is a senior tester in the standardizing and testing department of the Edison Electric Illuminating Co. of Boston. Chick is writing for *Edison Life*, starting a radio club, and continuing violin studies at the New England Conservatory. Gawdnose what the neighbors say around 126 Columbia Street, Cambridge!

D. G. McAllister, VI, is a graduate student in "Industrial Sales" with Westinghouse Electric, and is temporarily at Wilkinsburg, Pa. Address him at 224 Santa Yuez Avenue, San Mateo, Calif. Deck says C. E. Thornton, VI, is with him taking the "Railway Sales" course, and D. H. Hatheway is in the Engineering School.

The first of the 21'ers to acquire a better nine-eighths, to the best of our knowledge, was D. B. McGuire, VI, who was married on June 14 last at the First Congregational Church of Chelsea, County Road. Asked for details of the affair, Mac says, "981,382.7 people attended; humidity, 100.9 per cent; temperature, 99.99 deg. C; entropy, 1.23; and pi, for calculations, 3.141 592 653 589 793 238." He is now in the division office, plant department of Long Lines, American Telephone and Telegraph Co., New York City, with Ralph Ross '17, who installed the loud speakers at the Walker for '21's commencement week, and reports H. I. Granger, VI, in a hydroelectric construction company in Willington, Conn. Mac and the Mrs. are bungalowing at Mountain View, N. J. Congratulations and best wishes from all of us!

I. D. Marshall, VI, is assistant to the superintendent of the Malden Electric Co., Malden, Mass., and is living at 71 Summer Street, Everett, Mass. Irv says he is "neither engaged, married, nor otherwise handicapped."—Terry Mitchell, II, is a graduate student with the Westinghouse Electric and Manufacturing Co. at Wilkingsburg, Pa.—M. H. Naigles, XV, is with the installation department, Western Electric Co., New York City, on the automatic phones, and is living at 255 West 70th Street. Wish we had his "World Serious" bankroll!

A recent engagement of interest is that of C. B. Nelson, XIII, no details are forthcoming. Chris is with the plant engineering department, New York Telephone Co., and lives at 355 Communipaw Avenue, Jersey City, N. J. Best wishes, Chris.—Miss E. M. C. Nelson, IV, our only representative of the er—unfair sex, has fully recovered from pneumonia, and has completed her thesis work during the summer. Connie reports indulging in a good rest broken by a few trips to the Big City where she "lived the life of Wicked New York." Not that we doubt a lady's word, of course, but we're a bit sceptical about this Cousin-Mary-Jane-from-up-state stuff! Address, 112 Trowbridge Street, Cambridge, Mass.

At the present writing the only '21 man at the Lynn plant of the General Electric besides the VI-A bunch, is E. F. Praetz, II, whose home is 131 Haverhill Street, Lawrence, Mass.—C. A. Rimmer, XIII, is an instructor in mathematics at the Whitinsville High School, Whitinsville, Mass.—Edward Rogal, VI, is now a research assistant in electrical engineering at Technology, probably after more letters of the alphabet and—well, Radcliffe is near by. Address, 1238 Commonwealth Avenue, Boston.—S. J. Seampos, II, was in New York for the summer but has returned to Boston. He lives at 1440 Dorchester Avenue, Dorchester.—A. J. Shaughnessy, XV, is with the J. I. Downey Co., construction engineers, of New York. Shag lives at 418 Central Park West, New York City.—R. H. Wallace, XIII, is another of the bunch with the New York Telephone Com-

pany's plant department at 104 Broad Street, New York City, and is living at 55 Hanson Place, Brooklyn, N. Y. Ralph reports the marriage of E. I. Schock, XIII.

The engagement is announced of S. W. Ross, IV, of Boston, and Miss Bethel Lenore Banks. Spence lives at 6 Sherman Street, Roxbury.—And this is followed by more news of our exclusive architects: Dr. and Mrs. William Samuel Bushnell announce the marriage of their daughter, Katherine Bentley to M. A. Spencer, IV, on September 8 in Mansfield, Ohio. Meade can be reached at 111 Sturges Avenue, Mansfield. Best wishes, fellows.

G. E. Farmer, VI, and H. R. Blomquist, VI, ex-'21's, are back at the Stute. "Gef" has been writing us all summer about the wonderful scenery in Maine and deserves credit for the masterful way he has tried to lead us off the track!

Richard Lee, III, has started work out in the field in a Canadian mine. Dick's address is: Premier Mine, Stewart via Prince Albert, British Columbia.—H. D. Griswold, XV, has landed in the cotton manufacturing game. "Lieut" is with the Griswoldville Manufacturing Company of 75 Worth Street, New York City.—T. B. Card, VI, is with the Dayton Power and Light Company of Dayton, Ohio. Tom's address is care of the Young Men's Christian Association of Dayton.—A. St. M. Kreeger, II, was a visitor at the Technology Club of New York during the summer but left no permanent address. He can be reached at 1706 Duossat Street, New Orleans, La.—W. K. Avery, II, is with the Holmes Electric Protective Company of New York City. Whit's address is 25 Halsey Street, Brooklyn, N. Y.—O. W. Clark, XIV, of 864 Commercial Street, East Weymouth, Mass., is reported engaged, but we have no further news. Well, here's to the little lady, Ormond, old boy!

"Bill" McGorum is nicely located in the mechanical engineering department of the Eastern Manufacturing Company at Bangor. He helps make life pleasant for X-A at that station.—Johnny Sherman writes interestingly from Washington, D. C. where he is with the Bureau of Standards. How is the clarinet, Johnny?—"Don" Lyman is in the General Electric Planning Department.—"Bill" Plummer is back at the Stute working for an M.S.—"Bob" Felsenthal, after completing a flivver thesis, is in Chicago with an automobile accessories company.—Sumner Hayward is with the American Telephone and Telegraph Company in New York.—"Bill" McKeen is at home associated with the McKeen National Bank at Terre Haute, Ind.—"Bill" Kennedy is somewhere in New Hampshire helping to make mining drills.—"Ken" Bates is instructing at the Stute in the Heat Lab.—Paul Bertelson is at home and is vice-president of the Oceanic National Bank.—"Bill" Loesch, III, shovelling coal for Hanna Furnace Company, Leetonia, Ohio.—"Charlie" Cassell, Westminster, Md. Worked for a while in the coal fields in West Virginia and made so much money that he is going to take a month off and go mackerel fishing.—"Wint" Deane, 415 Summit Avenue, St. Paul, Minn. Working in a garage preparatory to entering the wholesale iron and steel business.

"Baldy" Baldwin is studying the cotton business at the Lowell Textile School.—"Cap" Officer is back again at the Stute to get his degree this time. "Mich" Bawden is to be congratulated on having the first class baby, as far as we know.—"Jack" Keller, going to finish up for sure this year.—"Dick" McKay, XV, The Angus Company, Ltd., Calcutta, India. Sailed on October 15. Is going to live a life of leisure for four years raising jute, with half a dozen South Africans to fan him constantly.—"Bunk" Talcott, spent the summer touring Europe with "Ike" French, "Toney" Anable and "Al" Wason. Bunk sailed for India this fall to join Dick McKay in Calcutta to get rich quick.—"Bill" Young has decided to take another year to complete his course and is back at the Stute again.—Frank Kittredge is working for Jeff McClintock in Pittsburgh. (?) Get dope from Chi Phi House.—Paul Anderson spent three months traveling Europe with his family and expects to get his sheepskin in March.

"Herb" Kaufmann has deserted chemical engineering to enter the field of manufacturing ladies' underwear in New York. We hope his work does not become too specialized.—"Russ" Savage is back at the Stute seriously engaged in graduate work in metallography.—"Alec" Wishnew, "Stubby" Whitten, George Safford and "Chuck" Boston left the Institute about a month ago having produced the final requirements for degrees. Now to plank a job. Here's luck to you.

"Bob" Rowe is in Buffalo and a gentleman of leisure.—"Sid" Marine in New York and "Dick" Poole in Boston are patiently awaiting developments.—"Louis" Hurley from only available information is in plumbing business with his father. John Healy, Jr., is associated with his father in the drug business in Cambridge.—"Westy" Westland has

spent this past summer at the Stute assisting in the civil engineering department.—“Arri” Arrigoni has left for Italy for further study. Reports are that he had gone for two or three years or until his bank goes bust.—“Red” Hanley has entered a higher plane as a prof. of chemistry at Mount St. Mary’s College, Emmitsburg, Md.—Charlie MacKinnon is among those at the Stute and is assisting in the Mechanical Engineering Laboratory.—“Riot” Evans is similarly engaged in chemistry.—“Willie” Corbett has at least temporarily sidetracked boxing for Harvard Business School. Willie with his new gloves aims to give business a taste of knockouts.

“Jim” Downey, Jr., and George Dandrow are finishing up at the Stute. George spent the summer in Germany with the Shipping Board while Jim was at summer camp.—“Freddie” Binns is not in the army but has entered the teaching profession in unknown parts of Pennsylvania.—“Walt” Hamburger is giving the Stute a few licks to complete his course. Keep that form of old intact. We’ll need it at the reunion.—“Al” Addicks having spent most of the summer in Europe returned and completed his work for a degree in short order.—“Lee” Leander has also become a teacher. He is at the New London Technical High School instructing in chemistry, physics and mathematics and the institution is co-educational.—“Joe” Mahoney is similarly engaged at New Hampshire State.

Of “Red” Bachmann conflicting dope has been received. One source says he is a gentleman of leisure, another says he is working in a paper mill in Maine. May be all the same.—“Bob” Dolle and “Ollie” Bardes are in Cincinnati, Ohio, selling castings for a foundry. Bob’s ad chasing on the T.E.N. may come in handy but Ollie runs a close race.—“Herb” Reinhard is cost accounting in Boston with the Gimblin Appraisal Company.—“Bill” Rose after recovering from a breakdown early in the summer, has returned to the Stute with his old pep and will complete his work pronto.—“Walt” Mason is chemist at a paper company in Walpole, Mass.—“Kowie” Kowarsky finished up early in the summer and was last seen heading for Woodhaven.—“Don” Gross is finishing up at the Stute.—“Red” Duffy and Frank Mitchell hit the army together as lieutenants in the Ordnance Department.

“Ashty” Siegfried, a brother of his reports, is a ditch digger out in Ashtabula, Ohio.—“Stuie” Nixon writes that he also is laboring with the Continental Motor Corporation on the sand dunes of Muskegon, Mich. He says that he and dirt are close friends these days.—Warren Norton is out with the same company as Stuie, but is working instead of laboring.—“Elsie” Pelkus is drafting at the Barnstead Still Company, Boston. Business ought to be good—but it’s only distilled water.—“Duke” Price is assistant at the Bangor Station of X-A. Congratulations are in order shortly for he is soon to leave bachelorhood.

Course X-A has claimed a large number of the Class, among them being your secretary. Thirty men in groups of eleven and twelve have rotated every two months since July 5, at the three stations, Buffalo, N. Y.; Bangor, Maine and Woburn.

“Sliver” Silverstein, “Ace” Rood, “Freddie” Adams, “Bob” Thurston, “Red” Whitworth, “Jed” Swift, “Pop” Merrill, “Ted” English, “Jes” Greenfield, “Skinatch” Rudow and “Kirk” Kirkpatrick have been at Bangor, Woburn and are now in Buffalo at the Lackawanna Steel Company.

“Rich” Clark, “Al” Breed, “Squeeze” Huggins, “Mummie” Hawes, “Bill” Hawes, John Ferguson, “Stosie” Stose, “Judge” Green, “Pa” Morgan, “M” Woodward, “Bill” Edmonds and “A” Pitman have been at Woburn, Buffalo and are now at the Eastern Manufacturing Company at Bangor, Maine.

“Joe” Gartland, “Ed” Wylds, “Gus” Diechmann, “A²” Orlinger, “Jerry” Tattersfield, “Ray” St. Laurent, “Bill” Smith, “Oscar” Neitzke, “Reg” Parkhurst, “Tommy” Thomson and “Grif” Griffith have completed work at Buffalo, Bangor and are now at the Woburn plant of the Merrimac Chemical Company. If everybody sticks and produces the goods, all will tuck away an M. S. in June.

“Georgie” Burt, 203 Bay State Road, is working for the Republic Truck Company of Boston after spending a warm summer in New Orleans.—Attilio Canzanelli, III, is studying Biology at Columbia University this year preparatory to entering Harvard Medical School in the fall.—“Bob” Barker and “Scoop” Mosserop toured the United States in a flivver this summer and wound up in Salt Lake City where they spent a few days with “Cap” Officer. Bob is going to spend the winter in southern Utah working in a vanadium mine. (Get address from “Cap”).

“Reg” Smithwick, III, is plugging hard at the old books for a change. Rapidly, he is

becoming a surgeon at Harvard Medical. Doesn't seem right but it's so!—"Trev" Peirce has become engaged early in the summer to Miss Miriam de Steigner Litchfield of Brookline. Miss Litchfield is a graduate of the Winsor School and of Vassar College.—"Ed" Craig, Jr., is engaged in malaria investigative work under the International Health Board of 61 Broadway, New York City. His work is in Kinston, N. C.

Notes from "Ev" Harman, IV, secretary of Course IV.

Meade A. Spencer has announced his marriage to Miss Katherine Bentley on September 8 in Mansfield, Ohio. All those that knew Meade were expecting this but not quite so soon. "Spence" is with Cross & Cross, architects, New York, when last heard from.

Spenaley William Ross has announced his engagement to Miss Bethel Lenore Banks.

Charlie McGill also has announced his engagement to Miss Awnemarie Sanders. "Cholly" was one of the first to make known his courage on Class Day. We are glad to see some of the fellows setting the rest of us a good example.

George Pollock has been a recent guest at the weekly luncheons of the Technology Club of Chicago. He is representing the T. S. Smith Company of Chicago, construction equipment.

John Merrill is with the firm of Lowe & Bollenbacher, both Tech men, and is living in Beverly Hills, a suburb of Chicago, with his wife and baby.

Joseph H. Carr, Jr. of Ames, Iowa, has decided to throw his lot with the big city. The best of it is, he is starting as a member of the firm of W. Scott Armstrong Company, Inc., consulting engineers.

"Al" Kruse has been a busy man all summer. In fact he has been so busy at MacGinnis & Walsh's that he hasn't been able to even write letters. Now he has decided to go back to school another year and is taking fifth-year design in Rogers' Building. He also bowls a little now and then at Walker.

Walter Vahlberg has succeeded in convincing Cass Gilbert that he can be of service to him. As many of us know, this office is one of the hardest offices in the country to get into and we are glad. "Vahl" will represent the Class there.

Chris Carven, Tech Show playwright will spend another year at Tech before getting his degree. Having started with '21 he has always felt a part of us and we will be sorry to see him join the Class of '22.

"Ev" Harman has been with Coolidge & Hodgdon, architects, but is going to go west for that rest Doc Morss told him about, since his Chicago "Physich" told him the same thing. From three to six months in the mountains, hunting, etc., should put him right in shape to come back for the building boom in the spring.

We have the following items regarding Course III men:

A. G. H. Anderson, at Massachusetts Institute of Technology.—G. A. Beeche, automobile business, Santiago, Chile.—S. W. Butler, 1448 East 108 Street, Cleveland Ohio.—H. G. Butter, work in Boston, 1132 Commonwealth Avenue.—C. A. Cassell, New England Coal and Coke Company, Everettsville, West Virginia.—J. R. Cudworth, Compagnier Real del Monte Pachuca, Hidalgo, Mexico, geologist.—H. W. Ericson, American Smelting and Refining Company, Santa Barbara, Chihuahua, Mexico.—E. R. Gordon, geologist, Box 2, University Station, Tucson, Ariz.—A. D. Harvey, auditing department of his father, Merrick, L. I.—Watts Humphrey, bank in New York. Now in mine in Ecuador.—M. E. Hurst, geology department at Massachusetts Institute of Technology.—W. A. Jayme, working for father in Pittsburg.—R. C. Johnson, Tennessee Copper Company, Ductown, Tenn.—E. C. Layng, assistant to Professor Locke at Massachusetts Institute of Technology.—G. H. LeFevre, F. M. Whiting Silver Manufacturing Company, Attleboro, Mass.—W. H. Leonori, selling steel for his father, Box 44, Smithtown, N. Y.

Helen Lord, ex '21, now married to Irving Whitehouse, ex-Yale and Course XII at Massachusetts Institute of Technology.—W. C. MacCoomb, work in Boston, North Chelmsford, Mass.—Dan MacNeil, not known. Grand Narrows, N. S.—R. J. Mellon, Cripple Creek Gold Company, Cripple Creek, Colo.—O. A. Mills, doing nothing at present, 4 Humboldt Avenue, Roxbury, Mass.; E. W. Noyes, Sullivan Machinery Company, Claremont, N. H.—F. W. Olsen, nothing, 6 Stratford Street, Allston, Mass.—R. L. Presbrey, not known, 28 Blue Hill Avenue, Mattapan, Mass.; C. B. Schureman, at Massachusetts Institute of Technology.—J. Skully, Pjebscot Paper Mill Company, Brunswick, Me., drafting job.—R. W. Smith, on geological survey of Kentucky.—C. L. Stone working in a mine in Arizona.

Course XV (Report about men who attended Ec58):

H. A. Alter spent the summer as swimming counsellor in a boys' camp in Pennsylvania and played professional baseball on the side.—Anthony Anable, left Technology in June planning to spend the summer abroad; with the Public Service Corporation of New Jersey.—P. N. Anderson, at Technology.—E. F. Badger, associated with factory Mutual Fire Insurance Company, planning department.—C. H. Baker, at Technology.—J. B. Baker, instructor in Department of Economics, Massachusetts Institute of Technology, assistant to Prof. M. J. Shugrue.—O. L. Bardes, Bardes Foundry Company, Cincinnati, Ohio.—J. W. Barriger, with Pennsylvania Railroad at Toledo, Ohio.—R. W. Bartlett, Jr., at Technology.—F. S. Blackall, Jr., at Technology.—F. S. Carpenter, with Worthington Pump and Machinery Corp., Harrison, N. J. Married Miss Hazel Wirt of Lowell, Mass., October 1.—D. B. Carter, with H. H. Franklin Manufacturing Company, Syracuse, N. Y.—L. W. Conant, Instructor in Department of Economics, Massachusetts Institute of Technology, assistant to Prof. Erwin H. Schell.—C. P. Davis, with Worthington Pump and Machinery Corporation, Buffalo, N. Y.

G. H. Davis, with B. F. Sturtevant Company, Hyde Park, Mass.—T. B. Davis, Jr., with Natalbany Lumber Company, Hammond, La.—Andrew Deane, with A. M. Deane & Company, Wollaston, Mass.—H. C. DeStaebler, with C. E. Smith, consulting engineer, St. Louis, Mo.—R. C. Dolle, with Bardes Foundry Company, Cincinnati, Ohio.—R. B. Donworth, with Dwight P. Robinson & Company, New York City, stationed at Cheswick, Pa.—J. H. Driggs, with Altoprker Brothers Company, Peoria, Ill.—L. S. Edgerton, with Dutcher Machine Company, Inc., Fulton, N. Y.—A. L. Edson, with Eastern Theatre Equipment Company, Boston, Mass.—E. G. Farrand, with Paul H. Davis Company, securities and investments, New York Life Building, Chicago, Ill.—R. E. Ferdinand, at Technology.—K. A. Froeb, with Continental Motors Corporation, Muskegon, Mich.—C. J. Hallinan, at Technology.—H. P. Harris, with Truscon Steel Company, Youngstown, Ohio.—A. R. Harvey, with Colin-Gardner Paper Company, Middletown, Ohio.—Capt. G. M. Herringshaw, Camp Holabird, Maryland, Holabird Quartermaster Intermediate Depot.—L. H. Hobbs, at Technology.—J. L. Hurley, with J. J. Hurley & Company, heating and ventilating, 120 Broadway, Boston, Mass.—M. L. Ireland, at Technology.—Odd Juel, returned to Norway.—J. W. Kendall, associated with his father in real estate enterprises in Pasadena, Cal.—H. S. Kiaer, returned to Norway.—S. W. Kitson, at Technology.—R. R. Lewis, in business for himself.—G. F. Lord, with New England Telephone and Telegraph Company, Boston, Mass.; D. B. Lovis, with New England Telephone and Telegraph Company.—J. R. Mahan, in oil business, central Oklahoma.—R. L. Moore, with Henderson Brothers, Boston, Mass.—R. F. Miller, with L. R. Steel Service Corp.—C. A. Morss, Jr., with Simplex Wire and Cable Company.—S. E. Nichols, at Technology.—E. Pauli, with Pyrex Glass Company, Newton, Mass.—J. T. Peirce, with Standard Oil Company, 60 Congress Street, Boston, Mass.—J. T. Rule, taking general arts course at Harvard.—H. L. Schmidt, with Harris, Forbes & Company, New York.—H. V. Seavey, in Europe.—A. L. Silver, with R. H. Macy Company, New York.—H. A. Simons, at Technology.—E. R. Stewart, with Lewis-Shepard Company, Boston, Mass.—C. H. Talcott, with Bemis Brothers Bag Company, India.—M. G. Townend, Park-Cramer Company, Fitchburg, Mass.—H. B. Tuthill, Oliver Machinery Company, Grand Rapids, Mich.—A. E. Watov, in public service work in Trenton, N. J.—R. A. Wehe, with Pacific Steamship Company.—G. T. Welch, Bursar's Office, Technology.—R. P. Windisch, with F. B. Keech & Company, New York.